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Original Communications.

ON PARESIS.

Read before the Toronto Medical Society

BY J. WORKMAN, M.D., PRESIDENT

Continued.

I have examined carefully over 130 reports of U. States and Canadian asylums for the last 3 years. In more than one-half this number I have found that paresis is either totally unmentioned, or but very exceptionally noted in the obituary tables. I believe it is a recognized fact that in the Southern, and the farthest Western States, the disease is unknown; or at least it has been unnoticed. A year or two ago a very intelligent superintendent of a Southern asylum stated at the annual meeting that he had never met with a case of paresis in his institution, and several others made similar statements. To an English superintendent, who numbers his paretics by the score, and shows a paretic death proportion of 1 in 3, or 4, this fact could not fail to appear marvellous; but even in Philadelphia, only 18 years ago, I was shown in the Insane department of Blocksley Alms House, which then lodged over 1,000 pauper lunatics, one case of reputed paresis—the only one said to be in the house;—and it was not one at all—or at all events it was not like any I had seen: for the only symptom adduced in support of the diagnosis, was one I had never met with in the Toronto Asylum—and that was, intense and constant pain in the head. Never yet have I met with a Paretic who would say he had pain in the head, nor indeed, in the vast majority, any pain, whatever, in any part. I do not say that this exemption from head-pain is an invariable fact, in the earliest stage of this disease: it has, however, as far as I can recall, been the rule in all cases

after admission into the asylum; and I have regarded it as one of the pathognomonic indications of the disease.

As illustrative of the great disparity between the numbers of male and female paretics, in the largest city in America, I present the following figures from the reports for 1876 and 1877, of two large asylums, representing the lower classes of the insane of the city of New York.

Ward's Island, 1876,—male asylum 44 deaths of Paretics, in a total of 131 deaths, or 1 in 3; 1877, do. 55, in a total of 126, or 7 in 16.

1876, Blackwell's Island—Female Asylum, 2 deaths, in a total of 97, or 1 in 48½; 1877, do. 2 deaths, in a total of 98, or 1 in 49.

These figures astonish even me, for in the first place the New York city male mortality from paresis, comes fully up to the highest English paretic rate, and in the next place, the female rate is far below that of either the English asylums, or any others from which I have had reports showing the comparative mortality of male and female paretics. But the reports of the Ward's Island asylum are from the pen of our talented fellow-countryman, Dr. A. E. MacDonald, whose veracity and correctness of diagnosis, I regard as thoroughly reliable. I do not venture to say so much for the other reports, as I am not personally acquainted with the author. I am disposed to believe that the female returns of Blackwell's Island asylum are quite erroneous, and that the under-rating has arisen from the dis-similarity of the mental symptoms in the two sexes. I also believe that the paresis of females is of much longer average duration than that of males, and may therefore be ranked as mere dementia. Why a New York city asylum should show a lower proportion than an English asylum, I fail to understand.

In striking contrast with the preceding reports, is that for the year 1876, of a third New York city asylum at Flatbush, where, in a total under treatment, in the year, of 1080, (459 males and 621 females), only 4 deaths from paresis are given in a total of 62 deaths. Distinction of sex is not given. I must observe, however, that 7 deaths are ascribed to apoplexy, 7 to exhaustion of chronic mania, and 3 to mollities cerebri. I question if two-thirds of these were not paresis.

I find from the records of the New York State Lunatic Asylum at Utica, which are perfectly

reliable, that in 29 years, from 1849 to 1877, inclusive, 267 deaths resulted from paresis, of which 250 were of men, and only 17 of women, being in the proportion of nearly 16 men to 1 woman.

I need not trespass on your patience with any further citation of figures, illustrative of the fact that paresis is paramountly a disease of the male sex; nor need I press upon your attention the concomitant fact, that an asylum, lodging any considerable number of these cases, must exhibit a higher death rate than others containing none, or only a few such cases. Figures are of little value dissociated from the facts from which they are derived. From a recent inspection of my friend, Dr. Clark's resident paretics, I venture to predict that his future death tables will show higher figures than did that of last year, when he had only 4 from paresis: whereas in 1874, I had 14. It would be very gratifying to find that decrease in the supply of new cases has begun to take place, but since this paper was written, Dr. Clark has had 3 deaths of paretics.

It is now time that I should offer a few observations on the leading characteristic symptoms of this formidable disease. Although very ample, if not indeed confusingly prolix, details are presented in all our late writers on insanity, it is a fact of which you all are cognizant, that to the general practitioner of medicine, opportunities of observing paresis in the living subject are of comparatively rare occurrence. The 40 counties of Ontario do not average one case each, annually, or, at least, they do not contribute this quota to our 4 asylums. I believe the total number admitted into the Kingston asylum, since its opening 23 years ago, would not exceed a dozen. The number admitted at London has not been great. The Hamilton Asylum has received none. Toronto has come in for the lion's share, and it has had to bear the bulk of the opprobrium of failure to cure, and of consequent augmented mortality. Now, taking the entire number of medical practitioners in our Province at 1500, and putting the number of annually occurring cases at 30, we have one case presented for every 50 practitioners; but considering that the majority of cases are furnished by the cities and larger towns, it may not be an exaggeration to say, that very many physicians in the rural districts may pass their whole lives without meeting with a single case; and coming down nearer home,

and supposing that our own city sends into the asylum one-fifth or one-sixth of all the cases of insanity admitted, and that it sends in a like proportion of paretics, we should have, yearly, for the 100 doctors of Toronto, 2, or at most, 3 paretics for observance, which in the course of 40 years, would come to about one case for every doctor. But then, bearing in mind that doctors emancipate themselves from these cases with all becoming, or possible celerity, it must be evident, that unless they follow up their cases by frequent visitation, in the asylum, (which, I am very sorry to confess, they too seldom do), they deny themselves the advantage of valuable clinical observation. I am very sure that my worthy successor would derive no less gratification from such visits by his professional brethren, than I did, or perhaps, I may more truly say, than I would have done.

Writers on insanity have generally assigned to the disease three different stages, but here, just as in many other morbid progressions, it is found that we cannot draw any clear line of demarcation between the stages; for they sometimes run into each other under such interchanging shadings, as to render their identification very difficult. We may this week find a paretic in such a condition of both body and mind, as to tempt us to the conclusion that his case is far advanced in the second stage, and yet in the succeeding week, he may have, apparently, retrograded, and may present only the symptoms of the first stage, and even these only in a moderate degree.

It has been usual to speak of the *first* stage as that of incubation; of the *second*, as that of full development, or pronounced maniacal disorder; and of the *third* as that of established *dementia*, with unequivocal subversion of both bodily and mental competency.

Now, as to the first stage. It is my belief that nothing can be more difficult than the fixing of its inception. It is true, indeed, that when once the destined paretic has begun to exhibit palpable extravagancies of thought or conduct, and to appear under a totally transformed character, few of his more reflecting, intimate acquaintances can fail to see that reason no longer holds her sway, and that the dire alternative of substituting extrinsic control for frenzied anarchy, must soon be submitted to by his weeping friends.

It has been questioned by some writers, whether

the mental or the physical symptoms of paresis have antecedence. It is my belief that the uncertainty presented in this relation has arisen mainly from defective observance, or unskillful appreciation of the germinal manifestations of *mental* unsoundness.

No doubt it not unfrequently happens, that an experienced alienist may, from the observance of some physical impairment, which has escaped the notice of others, detect the presence of paresis, even before the patient's nearest relatives or most intimate friends have suspected the incubation of mental disease; but considering how reluctant we all are to *believe* that which we do not *wish* to be true, we must not be surprised to find that the early aberrations of the insane are regarded, rather in any other light than the only true one. It would seem that we prefer to regard our endeared afflicted ones, rather as culpable moral delinquents, than as the innocent victims of tyrannous disease. Not unfrequently it happens, among a certain class of short-cut logicians, that the devil is blamed for many bad deeds and words, of which he is totally innocent. Poor old wretch. The annals of medicine prove that he has been the most flagitiously traduced reptile that ever crawled about in search of lost legs.

The first observable physical, and reliable pathognomonic symptom of paresis, is that peculiar blunting of speech articulation, or tongue-lameness, which so closely resembles the thickened utterance of drunk persons, as very often to be mistaken for it, and which I have had frequent opportunities of discovering, has led to error in assignment of the cause of the disease.

In some cases, even in an advanced stage, this muscular defect is but slightly observable; whilst in others, even at the outset, it is so manifest as to be detected even by the most casual interlocutor. Concurrently, perhaps, with this defect, though not unfrequently of later incidence, there may be detected a paretic irregularity in the gait, which is best observed by causing the patient to walk at some distance before us. It will then be seen that the muscular power in one leg is comparatively enfeebled, and that the foot comes down somewhat precipitately. This peculiarity in locomotion is, by an experienced observer, as readily detected by the ear, in the dark, as by the eye in broad day. There is, however, at present a res-

pectable paretic in the Toronto asylum, whose speech articulation is as badly impaired as I have seen it in some cases advanced in the third stage, and yet his locomotive co-ordination is as normal as it probably ever was. How long it will remain so, I would not venture to predict, for some day he may have an epileptiform seizure, and hardly after that, will he walk as squarely as he now does. This patient's amnesia is very marked.

Perhaps, in a diagnostic point of view, no symptom is more significant than increased keenness of appetite, though in some cases, this exaggeration of alimentive function may not be manifested before the commencement of the second stage, and in some it may not, if we are to believe all that is written, appear at all. I may here note that in the excellent monograph on General Paralysis, written about 20 years ago, by Dr. Austin, of the *Bethnal House*, a private institution, receiving, probably, only the wealthier class of patients, I have not found the symptom of morbid gastric activity mentioned. May it have been, that as Englishmen are usually big eaters, this fact may have escaped observance?

I can assure you, gentlemen, that I have had under my care, not a few paretics who were magnificent feeders, and I may add, with, as I trust, a good conscience, that I never stinted them. There was a time when insanity of every type, was treated by low diet, and short allowance even of that, but thank God, that day is now past; and surely, when we well know that paresis will not be cured by any course of treatment, and that paretics live as long, or far longer, when well fed, than when half-starved, and when we know, also, that to them short allowance means unspeakable torment, and full feeding is their *most*, if not their *only*, delectable fore-taste of Heaven, it would be nothing short of stupid cruelty to deny them the only comfort their sad condition permits them to enjoy. Never can I forget one noble wreck, who, erewhile, had been a keen sportsman, and was accordingly a great lover of duck. Duck had become his gastronomic beau-ideal; and when at last kind nature cheated into complacency his artistic palate, he had but one name for every viand presented to him, and that name was *duck*, and for long weeks before his exit, *duck* was the one sole word he could utter. Tom Moore has told us that "the vase in which roses has once

been distilled" never, though shivered and ruined, parts with its acquired sweet odour; so, verily, did the shattered vase of poor Sam Alderdice retain, to the last, the odour of his beloved *duck*. On last Saturday I saw in the asylum, two paretics, who, for several months past, have been unable to utter a single word. Had these men been keen shooters of duck, is it not probable that they might yet be able to articulate their darling monosyllable. But at least as to *one* of these two, his dumbness is a great blessing to his neighbours, for when I first became acquainted with him, his language was very disagreeable, and his veracity was very frail. Rest assured, gentlemen, there is, in Moore's simile of the rose-hallowed vase, a valuable truth involved. The mind that gathers and skillfully distils the roses blooming on life's pathway, may, even when shattered by disease, give out fragrant perfumes, whilst that which has become saturated with the fetid emanations of poisonous weeds, must disgust, or corrupt, all that approach it.

The three physical symptoms which I have mentioned, even when considered apart from those mental aberrations which are usually associated with them, might suffice for a reliable diagnosis; but when the somatic impairment is supplemented by the concomitant mental manifestations, it is impossible that any doubt as to the true character of the malady can remain.

The extent to which I have already trespassed on your time, forbids enlargement of this paper by a detail of the various intellectual and moral wanderings of the parietic. Suffice it to say, that though they present different forms in the two sexes, they are, nevertheless, essentially identical. In each, they derive form and colour from the pre-existing mental habits; so that, while the male parietic revels in his imaginary possession of uncountable riches, or in the projection of superherculean enterprises, his female co-mate luxuriates in silks and priceless jewels. Whilst *he* showers his gold in hundreds of thousands on all who question not his assertions, or marshals armies a hundred times more numerous than those of Napoleon or Xerxes, *she* revels in the delightful anticipations of marriage, and the bringing forth of the most beautiful children that ever yet fond mother laid eyes on. Not seldom, indeed, does it happen, that already she has assurance of being in that de-

licate way which all ladies who love their lords, rejoice in; and she besittingly engages herself in preparing those "*little things*" which the newcomer must need.

Both are perfectly self-satisfied, and what is equally good for those who have them in care, they are usually satisfied with all their surroundings. Nothing can be more unfounded than the dread of the friends of paretics, that they must find asylum residence miserable.

I should not close without alluding to a very striking mental impairment, which, in various degrees, is exhibited by paretics. This is feebleness of memory, which from simple aggravated forgetfulness, sometimes extends up to total obliteration of the faculty. The asylum inmate, who, perhaps has been resident for months, or even longer, will tell you he has been in for ten days, or three weeks, and he is always going home to-morrow, or next week. I have had parietic patients who have forgotten having dined within half-an-hour after swallowing a double allowance. These patients will tell visitors, (who are always so charitable as to believe anything *bad* that bears against the superintendent or his assistants), that they are starved—though it is wonderful how little like starvation they appear.

This impairment of memory presents itself, in some cases, at an early period, long before entrance into an asylum, in the inability of the patient to find the fitting words for expression of his beclouded thoughts; so that we are sometimes unable to say whether his speech interruptions are the result of muscular tongue lameness, or of mere amnesia. It is my belief that when this mental condition obtains, the course of the disease will be rather rapid. I have seen, in private consultation, three cases, in which early dissolution occurred before intellectual aberration had been markedly exhibited. One, indeed, of recent occurrence, seen with me by my friend, Dr. Covernton, could hardly be regarded as a case of mental dethronement. A very sure means of detecting amnesia is to induce the patient, provided he is able, to write a letter. In ever so short a page, you may find him reiterating the same phrase three or four times over—in almost immediate contiguity. In closing a letter to his wife, he may subscribe himself, "your obedient servant," or "very respectfully yours," and he may have begun with "Mrs. S—;

Madame," &c.; or if to a brother, "Dear Sir," and then forget to subscribe his own name.

In Ziemsin's huge work on Medicine, we are treated with some 300 pages on the various forms and modifications of aphasia and amnesia. If any of you feel strongly desirous of augmenting your vocabulary of Greek derivatives, undoubtedly you will do well to apply at this treasury. I wrote out until I reached 47, and then I gave up, from sheer exhaustion. Half-a-dozen, or half a score might have been useful, for it is always well, when hard squeezed by the ignoble vulgus for our diagnosis, to have at command some word of "learned length and thundering sound," with which to exemplify our immensity of knowledge; but to be embarrassed with more of these than a regiment of parrots could learn to repeat in half-a-year, is rather too much of a good thing for any cultivator of Anglo-Saxon simplicity.

You must now, gentlemen, feel thoroughly convinced that this paper is not an exhaustive treatise on paresis, but I am very much mistaken if it has not been rather exhaustive of your patience. All I could propose to myself was to offer to your indulgent attention, something which might fill up time, rather than nothing at all. The subject, however, is one of much interest, and it has already engaged the skillful and close observance of a goodly number of able writers; but, as the wise man said, "of making many books there is no end; and much study is a weariness of the flesh," I think, gentlemen, that any time within the last fortnight, very few in Canada would have questioned the truthfulness of that text.

I must not sit down without congratulating you as Canadians, and as quondam students in our Toronto Schools of Medicine, on the high standing to which two of your number have attained in the specialty of Insanity. I allude to Dr. Wm. Julius Mickle, who is now the Medical Superintendent of a large Insane Asylum in the outskirts of London, Eng., and to Dr. A. E. McDonald, Medical Superintendent of the City of New York Asylum, on Ward's Island. Both of these young men have gallantly fought their way up to their present positions, which they assuredly have not reached without keen competition, and a goodly share of subjection to national prejudice and mortified jealousy. Dr. Mickle has already acquired distinction, by the publication, in the medical press,

of several valuable papers on the disease touched on by me this evening. His observations on the relation between syphilis and paresis, as well as other forms of insanity, are exceedingly interesting, and as 400 of his patients are invalided soldiers, his field of observation is by no means a barren one. His papers on this subject are to be found in "The British and Foreign Medico-Chirurgical Review" for July and October, 1876, and April 1877. Dr. McDonald's paper was published in the "American Journal of Insanity," for April, 1877. As you will have perceived from the figures which I have cited from his annual reports, he also works in a large field, and I think he is cultivating it very diligently. The success of these two young Canadians speaks well for our native talent and energy, and should prompt every industrious and honourable young member of our profession, to press onward and upward, and to add still another leaf to the lovely wreath of his dear native land.

ON VERTIGO.

Read before the "Bathurst and Rideau Medical Association" at Arnprior, June 27,

BY J. D. KELLOCK, M.D., PERTH, ONT.

During the past few years much light has been thrown upon the true pathology and treatment of diseases of the brain and nervous system, chiefly through means of the labors of Brown, Sequard, Kristraber, Ferrier, Hammond, Mitchell, and others whose names do not now occur, indefatigable workers in this interesting field of medical research.

Whilst thus each succeeding year has served to correct former erroneous ideas or has evolved new facts in connection with nervous diseases, the field still remains and will ever prove to be a most interesting and profitable one to the earnest student of medical science. True progress ever has been a plant of slow growth. This growth may even for a time be imperceptible. Yet the discovery and establishment upon a sound basis of a single vital truth, is of far more value than ten thousand speculations, however theoretically beautiful and plausible such may be. The one is the gem of intrinsic value, the other but the glittering soap-bubbles which float buoyantly upon the current only to col-

lapse into nothingness against the slightest opposing force.

It is now generally admitted, I believe, although the fact was formerly disputed and denied by such as Monro, Abercrombie, Kellie and others, (their theory and experiments however were completely overthrown by Dr. G. Burrows, see Watson's Practice), that an increased amount of blood is to be found in the cerebral vessels under certain conditions *e. g.* during mental exercise; that the brain, like other organs and tissues of the body, is liable to permanent vascular enlargement and interstitial structural change. What relation these conditions bear to each other is of course a matter of importance, could we fully determine that relation in all its bearings. This, however, I imagine, is no easy matter to do, since we cannot experiment upon and place under observation the living brain in the same manner in which we may with regard to most of the other parts of the body in man and the lower animals. We are all aware of the modifying effects produced upon the solids and fluids of the body by emotional disturbances. We see this daily exemplified in the effects resulting from sudden fright, from anger or shame, violent exercise, or in fact from any circumstance which powerfully impresses one through his nervous system and circulation. The brain must necessarily be affected by the disturbance in such cases, although we may be unable to determine with accuracy either the nature or the extent of the change which occurs. We may, however, reasonably conclude that like causes will produce in the brain, changes similar to those which take place in other parts of the body and which we can readily determine. Now any cause, be it mental emotion, protracted mental exertion, excesses, or whatever tends to disorder the cerebral circulation, produces a condition of cerebral hyperæmia. This condition remaining with more or less permanence, constitutes a disease which, according to Prof. Hammond, is more often found than any other nervous affection. Unhappily it has been far from being an uncommon event, to learn of the death of many distinguished persons from this hyperæmic condition of the brain, the result of excessive mental work and strain. Then are brought under our notice, many cases of serious illness oftentimes proving fatal, which result from that continued bodily and mental excitement, that anxiety and care which the unceasing struggle in the

battle of life entails upon so many men and women in this day of bustle and progress. It is, however, not my purpose here to enter upon in detail the particular disease referred to, but merely to make a few remarks upon one of the prominent symptoms, derived chiefly from a too intimate personal experience of its operation in myself. I refer to the occurrence of vertigo, or more particularly to that denominated gastric vertigo, a most troublesome and distressing affection. Except an able and exhaustive clinical lecture by Prof. Weir Mitchell, to which I am much indebted in making these observations, I have not met with any lengthened, and, in some cases, not very accurate description of this peculiar condition, in the range of medical literature to which I have had access. I have therefore thought it might be profitable to bring under notice some of the more prominent features of this singular aberration, with suggestions as to the treatment, as these were developed in my own case.

At the time when I experienced the first attack of vertigo, now about seven years ago, I had been very much run down mentally and physically from a variety of causes unnecessary here to mention. The first seizure occurred one morning whilst in the act of stooping. The room appeared to become suddenly inverted, and I fell to the floor. Here let me remark that in this, as well as in each subsequent complete attack, this inversion of the surrounding objects appearing simultaneously with the dizziness, produced a most singular sensation, the whole surroundings appeared to be whirling and surging to and fro like the reelings of an inebriate. This condition of externals is however, in some cases, reversed, when the opposite effect is produced, the person finding himself reeling and giddy while the surrounding objects appear to be unaffected. At the first the attacks were more frequent and usually came on in the morning or evening, seldom during mid-day. They came on at irregular intervals, and there was little or no warning of their approach. First would be felt a peculiar sickening sensation, a *goneness* in the epigastric region, immediately followed by a fullness and swimming in the head.

The epigastric uneasiness led me to determine that an accumulation of gas in the stomach from indigestion was the usual exciting cause of the vertigo, hence the designation "stomachic vertigo"

first applied to it, I believe, by Trousseau. Other circumstances, such as sudden changes of posture, mental excitement, loss of regular sleep, nauseating odors, reading closely; these and others, acting through one or other of the organs of special sense, predisposed to and often induced the attacks; but the cerebral hyperæmia was without doubt the *causa et origo mali*. When the vertiginous state has become fully established, the unhappy sufferer leads a most miserable existence. If unaware of the true nature of his disease, his mind becomes a prey to the most gloomy forebodings. Thoughts of apoplexy, brain-softening, paralysis, locomotor ataxia, epilepsy, insanity and the host of cerebro-spinal diseases flit through his weary brain,—feelings which a perusal of most medical authorities will not tend to dispel, but the rather to strengthen. As the giddiness is liable to come on suddenly, the patient dreads to walk alone or even to appear in public places, lest an attack supervening, charitable onlookers might ascribe his weakness to intoxication. Thus living in constant dread of the constantly recurring attacks, with mental and physical powers weakened and depressed, life becomes a burden, which many a poor fellow might rashly attempt to surcease “with a bare bodkin” or “a cup of cold poison.” In addition to the foregoing symptoms, there generally remains for some hours after each attack, a dull, sleepy feeling about the head, which has become abnormally hot. There is never any loss of consciousness. The pulse becomes quickened; in my own case it remained for days at a time about 90. Occasionally it became intermittent, each intermission being accompanied with a precordial spasmodic disturbance, producing a momentary disagreeable choking sensation and cough. There is usually anæmia and wasting, with, of course, greatly impaired muscular and nervous power. In myself and in other similar cases coming under notice, no organic lesion could be detected. The urine is usually normal, but may often be paler and increased in quantity, oxalate of lime being present with an excess of phosphates. I have already stated that, in my own case, I believed the cause of vertigo to have been primarily cerebral hyperæmia, with various concomitant dyspeptic derangements. There are, however, a variety of conditions which occasion vertigo, and the true condition or cause is not always readily determined

by the vertiginous symptoms themselves, for these may vary greatly and be found somewhat indefinite. Vertigo is not to be regarded in itself as a disease, but rather as a symptom, a compound symptom, comprising usually confusion of the head, apparent disturbance of external objects, and more or less defect of equilibrium. Some of the states included in this definition are also found in various diseased conditions, *e.g.*, disturbance of equilibrium in ataxia, in anæmia, in disease of the cerebellum and parts of the cerebrum. Dr. Ferrier has demonstrated that the means whereby we maintain our equilibrium depend upon the condition of the co-ordinative centres, the afferent and efferent nerves to and from the muscles which sustain the steady upright position. Disturbance of the co-ordinative movements of the two fields of vision cause vertigo. Affections of the ear, especially of the internal ear, such as is now familiar to the profession in that very intractable affection known as “Menière’s Disease,” and inflammation of the semicircular canals, are attended with vertigo. Certain drugs, also, especially those of the narcotico-stimulant class, induce giddiness. Alcoholic vertigo, unfortunately, can every day be seen. Some patent medicines, such as Fellow’s Syrup, which contains strychnine, occasion it. I read lately of several cases arising from the use of Dean’s Rheumatic Pills, said to be due to the poke root, an ingredient of these pills.

The immediate cause of simple vertigo is no doubt due to a disturbance in the circulation in the nerve centres, for suddenly rising erect, stooping, swinging round in a circle, or the like, will often occasion it. This disturbance, however, may and often does take place through an influence primarily felt through the sympathetic nervous ganglion, and therein acting upon the circulation of the brain and other nerve centres. In this way gastric vertigo no doubt comes on. The epigastric uneasiness immediately precedes the cerebral derangement, and often a distinct and constant relation may thus be traced between the condition of the stomach and the vertiginous attacks.* Stomachal vertigo is not always so readily discriminated from other varieties. When, from repeated attacks, the brain becomes highly sensitive to impressions

* I have frequently experienced a momentary disturbance in the head from pressure with the finger upon the pneumogastric nerve in the neck.

which under ordinary circumstances would likely produce no disturbance whatever, but now give rise to the vertigo, and I myself experienced such a condition, we have now established a more or less permanent *vertiginous status*, characterized by an almost constant sense of cerebral uneasiness, haunted by the continual dread of progressive increase. There is now set up such a state of actual mental and physical irritability and weakness, which seems to keep the nervous system up to its highest tension and leave it open to be impressed by the slightest disturbing cause. The vertigo is now no longer evolved only by its primary cause, for bright lights, acute sounds, nauseous odors, crowded places, mental excitement, worry, emotion, constraint of posture, in short any sudden excitement of the sensorium will give rise to an attack; it may be a momentary confusion with brief swimming round of objects and disturbance of equilibrium, or a feeling that one needs to lay hold of some support to prevent the erect from becoming the horizontal. This vertiginous status lasts for a varying length of time; and it is most important to note this fact, that no matter what has caused the vertigo, if it recur often, there will be found an increasing capacity to suffer from lesser causes.

The vertiges of anæmia are well known; they are rarely alarming; women are most frequently the subjects, and in them notably at the menstrual period, when the circulation is prone to excitement. Albuminuria may also be noted as a cause of vertigo, and should always be considered and tested for if the cause is not otherwise apparent. We know that violent headache is sometimes an accompaniment of Bright's disease, and no doubt has been met with by all in practice. It is also not uncommon to find vertigo associated with hemi-crania, in the commencement of the attack. For many years I was the subject of periodical attacks of severe *migrain*; when the vertigo supervened the headaches almost entirely ceased, seeming to have been replaced altogether by the vertiginous affection. The vertigo of old age is another familiar example of this disease. Here we find it occurring sometimes paroxysmally as a single symptom, unassociated with any special state that might account for it. Other conditions and circumstances which act as the exciting causes of vertigo might be instanced, such as intestinal irritations, a re-

markable case of which occurred in the practice of our worthy President, where the lodgment of a herring-bone in the rectum produced a sudden and violent attack, which was promptly relieved on removal of the cause. I might also cite defects of nutrition and inequalities of the circulation from cardiac affection, the menstrual crises, the attacks of fever, sea-sickness, sexual exhaustion—a frequent cause, the use of alcohol and tobacco, etc.; but after all these have been noted, there would still remain to be considered cases which occur as unaccountably as chorea and epilepsy do. These essential cases are usually grave and but little amenable to treatment. Coming now to the question of prognosis and treatment, it is satisfactory to be able to give assurance that vertigo *per se* is not usually to be regarded as a dangerous symptom; that it is not a premonition of apoplexy, paralysis, epilepsy or other grave affection. Recognizing the true nature of the disorder, we can dispel the needless fears and misgivings of the patient and thus greatly assist in his restoration to health and vigor, a result which removal of the cause and the carrying out of the proper medical and hygienic treatment will in time bring about.

In the treatment the usual farrago of drugs and dyspeptic remedies, strong purgatives, and every other measure calculated to lower the system should be discarded. Long patience and steady perseverance on the part of the patient in the use of the proper remedies are absolutely necessary, as the cure will be but gradual, requiring months to complete it in a confirmed case. If the confidence of the patient be not retained, he will likely "go the rounds," trying, at the suggestion of some sagacious friend, now this sovereign remedy and again that other, to-day consulting one doctor, to-morrow another, until very likely he passes beyond the reach of assistance,—a victim to his own indiscretion. Such persons, like most cases of confirmed dyspepsia, constitute the *bête noir* of our profession. Due attention must be paid to the usual hygienic means of invigorating the body, such as bathing, gentle exercise, full and regular sleep. A diet, at first light but always nutritious, carefully regulated as an intelligent person will soon learn to do for himself, avoiding sweets, fats, pastry, coffee, alcoholic stimulants, etc., is of much importance.

Of drugs, the best results may be expected from such general and nerve tonics as strychnine, phos-

phorus, bromides of potassium and ammonium, alkalies, pepsin, ergot, valerian, etc. In my own case neither quinine nor strychnine could be tolerated, owing to the unpleasant fullness in the head which resulted. This, however, might be obviated by a combination with Fothergill's hydrobromic acid. I derived the greatest benefit from a faithful perseverance in the use of the bromides, bicarb. potass., ammoniated valerian, solution of phosphorus and peptonics. A visit to the seaside for a few weeks, during the first fortnight of which I gained ten pounds in weight, gave me the first start on the road to recovery, which, being followed up by the treatment indicated, sufficed to put the enemy entirely to rout. The best prophylaxis will be found "in rigid self-control, a moderate ambition and the observance of regular habits,—

Learning our little barks to steer,
With the tide, and near the shore."

UNUNITED FRACTURE OF THE RADIUS AND ULNA, OF SIX YEARS' STANDING, SUCCESSFULLY TREATED BY RESECTION OF THE ENDS OF THE BONES, AND THE APPLICATION OF SILVER AND ANNEALED WIRE SUTURES.

BY ARCHIBALD M'LAY, M.D., WOODSTOCK, ONT.

Read before the Oxford Medical Society, July 11th, 1878.

The patient, Mr. McFarlane, of Ratho, Ont., aged 54, consulted me about one year ago, relative to his arm. He informed me that in April, 1872, while working a stationary engine in the town of Hamilton, Scotland, he met with an accident which resulted in simple fracture of bones of the fore-arm.

The surgeon of the works was immediately sent for, and attended to the fracture. The patient was under his care for 11 months, during which time the bones failed to unite. Afterwards he was removed to the Glasgow Royal Infirmary, under the care of the celebrated surgeon, Prof. Buchanan, who, shortly after his admission, performed the operation of resection.

During the first few weeks he was confined to his bed, with the arm extended from the body

without splints, and as soon as the external wounds were healed, a starch bandage was applied and worn for a long time. On removal of bandage, it was discovered that no union had taken place. They desired to operate again, but the patient would not consent, and shortly afterwards came to Ratho, with a perfectly useless arm.

On examination, I found that the bones had been broken at the junction of the middle and upper third, at or contiguous to the nutritious foramen. The bones were lapping each other about $1\frac{1}{2}$ inch; forearm greatly atrophied and flexion of phalanges completely impaired, which impairment was largely due to the long continued use of the posterior splint on the forearm. I could not bring the ends of bones in a position, there being strong fibrous attachments between the bones laterally. After explaining the nature of operation necessary, the risk of same, and the probably unsatisfactory result, the patient left, concluding to think over the matter.

In about 6 months afterwards he called and requested me to operate. I did so last March 13th.

After the patient was about fully under the anesthetic, (ether being used) an Esmarch's bandage was applied, extending a little beyond the elbow. An incision about four inches in length was made along the post-superior part of forearm, over the seat of fracture. A similar one along the post-inferior part, and the bones exposed. It was with some difficulty that the bones were turned out, owing to extensive fibrous adhesions between the bones.

The ends of the bones were covered with dense fibrous tissue, and much pointed. About one half inch was sawn off each end, and a strong silver wire passed through the radius, and an annealed iron wire through the ulna, and twisted up, this bringing the cut surfaces in apposition. The ends of the wire were cut off and pressed down evenly to the bone, the flesh wounds being drawn together by silver sutures.

A solution, consisting of carbolic acid 1, and oleum olivæ 16, was applied as a dressing, and a rectangular splint, (a modification of Bond's) along the anterior surface, and firmly bound by a roller bandage.

Opposite the wounds, the bandage was cut across, converting that part into a many-tail, in order that the nurse could dress the wounds with-

out disturbing the splints. Outside of this bandage, another roller was applied, keeping the whole well-supported.

March 14. Passed a comfortable night, wounds looking well, pulse 100 and feeble. Ordered beef tea and milk diet.

March 15. Pulse 120; temperature 102, tongue coated, slight headache, pus not discharging freely. Removed two sutures from the wounds. A quantity of pus came away freely from the under wound. There were marked symptoms of erysipelas extending from elbow half way up the arm. Removed the perpendicular part of splint; order 5 grs. of hyd. chlo. mite., followed in four hours with 3 grs. sulph. magnesia.

A lotion of plumbi acetatis et. opii. to be applied constantly to elbow and arm. Internally, 10 m. tinct. ferri. mur., every three hours after the bowels move.

March 17. Symptoms good; pulse 85, temperature normal, tongue moist, part of wounds healing kindly. Packed the wounds opposite the fractured ends, with lint saturated with the carbolic sol., and continued aforesaid treatment. Requested the patient to walk out a little every day. Take a good nourishing diet, also a pint of best porter daily.

March 20. Wounds looking well and healing. Erysipelas symptoms all abated. Stopped the lotion and ferri. mur. mixture; continued the other treatment as before.

April 8. Moved patient to Woodstock; dressed the wounds every day.

May 12. The wounds were nicely healed, and union of bones established. Applied a leather splint to the posterior part of forearm, and bandaged as before.

July 1. Complete bony union having taken place; flexion of fingers almost perfect. The patient was dismissed, but is still wearing splints, and will continue to do so until the parts get stronger.

I am much indebted to Dr. Swan, who kindly and ably assisted me during the operation, and to Alex. Munro, (my student) who administered the anæsthetic.

REMARKS:

My reason for using the iron wire in this case, was simply owing to the fact that we did not have a sufficient quantity of proper silver wire with us,

but from the result of this case, it is equally as good as the silver.

The Esmarch's bandage facilitated the operation very much, as not one drop of blood interfered with the operation, and on its gradual removal, not more than 1½ oz. escaped.

Now, when we take into consideration the age of the patient, the time elapsed since the accident, the seat of fracture, relative to the nutritious foramen (which is still held by some to be the chief cause of non-union in such cases), and the excellent result of this operation, it will give us encouragement in other apparently hopeless cases.

ATTEMPTED SELF-DESTRUCTION BY TAKING PART OF A STRONG SOLUTION OF CYANIDE OF SILVER, WITH SUBSEQUENT DELIRIUM TREMENS. —RECOVERY.

BY DR. BURROWS, LINDSAY.

The victim, a young married man of intelligent and prepossessing appearance, a silver-plater by occupation, and a late arrival in this town, attempted to commit suicide on the morning of the 26th. Some time previous to coming here, it appears he had been quite dissipated, the disastrous effects of this pernicious habit being perceptible in its usual characteristics. Being an excellent workman, he was taken into a shop here, devoted specially to his particular line of business. It appears that for the last few days, he had endeavored to break himself off the degrading habit, and thoroughly realizing his unfortunate position, became low-spirited and desponding. On the morning in question, he told his wife that he had, while working with the cyanide mixture, a mind to take some of it, and do away with himself. This being repeated to his employer, he endeavored to cheer him up, and to dispel the depression and relieve a diarrhœa of which he complained, took him to a hotel and gave him a glass of brandy, sending him back to his work. Soon returning himself, he asked for his man, not finding him in the shop. He was informed by his wife that he was very sick, and had confessed to have taken part of the cyanide solution. I was immediately sent for, and taking my pocket case and a small quantity of Tinct. Ferri, was soon at his bedside.

I found my patient stretched on the bed in the recumbent position, breathing with great difficulty, but partially sensible, could articulate with great difficulty, face livid, blood vessels gorged, conjunctiva injected, pulse imperceptible, beating with great difficulty. He complained of a feeling of great constriction in the throat, also in the region of stomach and heart, and gasping for breath. A perceptible odor of cyanuric acid, and slight frothing at mouth.

I immediately sent for stomach-pump, administered the iron, and produced copious emesis by means of emetics and tickling of the fauces with a feather. I also administered a solution of common salt, in fear of some portion of nitrat. argenti being present, and sweet oil to allay irritation. After free evacuation of the stomach, I administered tea, extract of beef, and whiskey, part of which was retained, and somewhat revived him. After being with him an hour, I left, taking a part of the liquid last vomited, which I carried to a drug store and found it still to contain traces of cyanide, developing, with the iron test, the characteristic blue of cyanuret of iron. I had an emetic again given him, after which, support by liquid nourishment and stimulants as before, when he again soon felt somewhat better. The face had resumed a more natural expression, the lividity entirely gone, pulse more full, breathing easier, and warmth of body and extremities returning. I left him sleeping quietly, some little nervous twitching being noticeable. On my evening visit, I found him to have gained in strength, with symptoms of D. T.'s beautifully developing, mind wandering with some mutterings. Not thinking further depletion necessary, I advised beef tea, whipped white of eggs, to be given early and often, with a limited supply of whiskey. I also put him on pot. bromid. and chloral. On visiting him again, I found him to have passed a restless night, entertaining his watchers with odd fancies; he had, however, further gained in strength. I now recommended one-sixth grain muriat. morphia, in compressed powders of Wyeth's manufacture, one to be given every hour. Nourishment and stimulants to be continued. This treatment was attended with good results, he passing the night more quietly, though still some little muttering and delirium. He now became more quiet, and gaining rapidly, made a good recovery.

The cyanide solution which I have mentioned, is largely used in the silver-plating business, and is kept in a large vessel. It is necessary to be very strong, representing $\frac{3}{4}$ x. or $\frac{3}{4}$ xii. to the gallon. This at the low estimate of $\frac{3}{4}$ viii. to the same quantity of water, would represent grs. xxx. to the $\frac{3}{4}$. Having his hands in the position named he could readily take up that quantity, and must have taken at least the equivalent of 30 grains of this very poisonous solution.

Lindsay, June 29th, 1878.

TRANSLATIONS FROM FOREIGN JOURNALS.

ENCHONDROMA, DEVELOPED IN FIFTEEN DAYS.

From "Le Progrès Médical," Paris, July 13th. (Reported by Dr. Poinso, Consulting Surgeon of Bordeaux Hospital).

On the 20th of March, 1873, M. L., living in the neighborhood of Bordeaux, brought to my office his young son, aged four years, upon whose condition he desired my advice. In the first days of the month the mother had perceived that the child carried his hands often to the genitals, and, after some remonstrances, she was desirous of assuring herself that there was nothing that justified this unaccustomed proceeding. She noticed that the left side of the scrotum was slightly increased in size. A little frightened although the child complained of no pain, and fancying that a hernia was developing itself, she called in, on the 4th of March, the ordinary family medical attendant, M. Cozic-Pénanguer, who after having examined the little patient, reassured her and advised simply compresses soaked in an absorbent lotion. Nevertheless the scrotum increased in volume, and in a second visit which took place five days afterwards, M. Pénanguer announced to the parents that there was an accumulation of watery fluid in the bag, and explained the necessity for its liberation by incision. This procedure was accepted, but by common consent delayed for a short time. Great was the surprise of the family when, on a third visit made at the end of eight days, M. Pénanguer declared that tapping would be useless and ordered as an application to the tumor (which had become hard and the size of an egg) a plaster of hemlock, to be retained over the tumor for several days. It was

under the influence of emotion produced by this unexpected change of opinion, that the father, M. L., decided upon seeking my opinion. From the commencement of the examination, it became evident to me that I had to deal with a solid growth. The tumor of the size of a large hen's egg, limited to the left side of the scrotum was of an absolute ovoid form, regular, smooth, a little flattened in transverse diameter; its consistence was uniformly hard, resisting; in front only could be discovered an obscure kind of fluctuation. At no point did pressure occasion pain. The form, the exact limits of the tumor, did not allow it to be mistaken for hydrocele, of which the aspect is pyriform or even cylindrical and which sends generally a prolongation more or less remarkable towards the external ring of the inguinal canal. Besides, examined as to transparency, the tumor was in no place traversed by luminous rays. Resistance to the touch, furnished another diagnostic sign, as it could only have been explicable on the hypothesis of hydrocele, by a great thickness of the coverings or walls, an idea absolutely incompatible with the very rapid development of the disease. This incompatibility did not exist however for hæmatocele, but it was impossible to discover in the antecedents any traumatic violence exercised on the scrotum; the objections drawn from the form, and limitations preserved here, all have their value; in fine, if hæmatocele, in consequence of fibrinous deposits and of false membranes with which the tunica vaginalis in that affection is invested, can acquire so remarkable a resistance, it has never an absolute hardness, and in every case this hardness is superficial in front and behind, whilst with our little patient it was only perceivable in front, through a thin layer of fluid. But, among the neoplasms with which the testicle may become the seat, to which did it point? This diagnosis, so important from the point of view of treatment to be determined on, and that the examination of the tumor alone did not suffice to establish, was not rendered any easier by the reunion of other local signs, or even by the consideration of the general condition. Here are the particulars that I find in my note book on the subject: "The skin which covers the tumor is healthy and rolls easily on the subjacent parts; it is nevertheless distended and furrowed on its surface by large vessels. The glands in the groin are not swollen, on both sides they present the same

aspect and the same volume. The spermatic cord is absolutely distinct from the tumor, it is easy to grasp it between the fingers to discover the integrity of its constituent parts. The right testicle is normal, it is only drawn up a little towards the ring, in consequence of the development of its fellow congenital. The general health of the child leaves nothing to be desired; he is large, well developed, robust. The plumpness (*embonpint*) is natural and satisfactory and every function of the body performed with perfect regularity. There does not exist in the family any cancerous antecedent; an uncle died of pulmonary tuberculosis."

The idea of hæmatocele set aside for reasons already given, the age of the patient, the course of the disease, left place for no other conclusion than that of malignant tumor. It is true that this hypothesis did not at all agree with the excellence of the general health; but the so rapid development of the tumor permitted the right of concluding that the neoplasm although malignant, had hitherto remained local, and not had the time for infecting the general economy. I carried then the clinical diagnosis to cancer, without going further into the histological determination of the morbid product that I supposed however to be of a sarcomatous nature.

I communicated my fears to Mons. L., without at the time pronouncing the formidable word that was uppermost in my thoughts, and did not conceal from him the absolute necessity for immediate operative procedure. Appreciating at the same time the legitimate emotion that this unexpected announcement must cause him, dissipating his hopes of mere trifling derangement, I besought him to have further counsel. The gentlemen assembled to the number of three, gave opinions slightly differing on the nature of the disease submitted to them. Two concluded as I had done on the existence of cancer; a third basing his opinion on the consideration of the general state, and on the rapidity even of the development of the tumor, on the pre-existence of a serous infiltration, determined that it was a hæmatocele. All three agreed upon the necessity for an operation.

On the 24th of March, at my request, Dr. Cozic-Pénanguer consulted with me. I had then a confirmation of the particulars of the case which had been furnished me by the family. My honorable confrère had established at the commencement of

the case an elastic, perfectly transparent tumor, and in the course of twelve days he had perceived the consistence of this tumor modify without appreciable cause, its hardness become extreme, its transparency disappear. Although at first induced to consider it hæmatocele, the same motives that had determined my opinion had prevented him from continuing of the same mind, and from that time he had remained convinced of the cancerous nature of the disease. Under these circumstances there could not be between us any divergence on the mode of intervention to be selected. Castration was decided upon and proposed to the parents, who accepted it immediately, although warned of the chance of a return. The operation took place in the presence of MM. Cozic-Pénanguer and Oré. In this short space of time, the tumor, without doubt under the influence of the manipulations which the frequent examinations had given rise to, had notably increased in size, in breadth as well as length; in the last measurement the increase had extended to the neighborhood of the external inguinal ring. The glands remaining all the time unaffected, I commenced the operation according to the practice and teaching of M. Gosselin, in making an exploratory puncture with a trocar. This puncture gave issue to a few drops of blood, which, joined to the impossibility of moving the point of the instrument, gave a new confirmation to the diagnosis which had early been arrived at—necessity for castration imperative, and I proceeded to the accomplishment of it in the following fashion: A racket-shaped incision was made on the anterior surface of the tumor—simple at the superior part; it bifurcated below, in such a manner as to circumscribe a certain extent of integuments, that I purposed dissecting back. I took care to prolong this incision backwards, to avoid the formation of a pouch in which the products of suppuration might stagnate. The skin thus divided, I isolated the tumor from the integuments, then from the septum of the dartos, taking care according to the advice of Chassaignac to graze closely the tumor, to avoid this partition which may enclose vessels of considerable size. The hemorrhage was trifling, a few small cutaneous vessels poured out a small quantity of blood, to which were applied torsion forceps. The operation was terminated by a ligature of the cord, which was cut below; I tied equally the vessels which continued to spout after the removal of

the forceps. Two twisted points of suture were placed in the upper part of incision. I stuffed the wound with charpie, after having taken care to bring the ligature threads to the most dependant part. Charpie and compresses steeped in cold water completed the dressing, that I kept in position by means of a spica bandage, for fear that the child with the indocility of his age might derange the dressings and irritate the wound. Examined two hours after operation, the tumor weighed one hundred and fifty grammes (over four ounces and a-half). It presented the form of a regular ovoid, its largest extremity directed downwards. Its consistence was equally hard, its surface smooth without knobs. At the superior and anterior parts, there existed a little tumor, superadded to the principal one; this tumor is softer, partly transparent, and an incision gave exit to a small quantity of serous fluid. Examination made it apparent that this outpouring had its origin in the tunica vaginalis, which was nearly healthy. As regards the epididymus, it had disappeared in the morbid mass. The spermatic cord is healthy, and may be followed to a certain extent to the superior and posterior part of the tumor. Under a section, the constituent tissue of the tumor presents a smooth aspect, shining on reflection a bluish white. This appearance was not absolutely uniform: the shining parts, like mother-of-pearl, display themselves under the form of rounded plates or scales of variable dimensions, isolated from each other by bundles of fibrils. Scratching does not occasion a juice to exude. The specimen was sent to Dr. Vergely, assistant professor at the School of Medicine, who was kind enough to undertake the microscopical examination and to send me his report, which I copy verbatim: "The mass of the tumor is formed of cartilaginous tissue. The cartilaginous cells, of which only some possess a capsule, and which for the most part are large, irregular, furnished with prolongations with one or several nuclei, are united by groups corresponding to the lobules of the surface of the section. Between these masses and isolating them, we meet abundant fibrous tissue; even on a point of the tumor, this tissue is nearly the sole, and with difficulty you perceive in the interstices of fibres, a few cells. The arrangement that I have described justifies the anatomical diagnosis of fibro-chondroma." The results of the operation were favorable. Immediate

union was obtained at the upper part of the incision where I had placed sutures; a healthy and abundant suppuration was established on the second day in the rest of the wound. This rapidly granulated; between the eighth and the twelfth day all the ligatures came out, and in three weeks there remained only a linear wound the granulations of which I had several times to repress. A month after the operation the healing was complete. There had not been the slightest threatening of a local return, and the general health continued perfect. The family, entirely given up to the joy of a result that our prognostications did not permit them to hope for, thought of nothing but of enjoyment with their child restored to them, and I lost sight of my little patient. In the following month of September Madame L. brought me back her son. For several days she perceived the abdomen to have increased in size, presenting at a certain point extreme hardness. The general health had continued good, nevertheless Madame L., remembering the fears that we had expressed on the subject of the future of the case, came in great haste to ask me whether they were about being realized. The following is the result of my examination:—Normal coloration and plumpness. At the level of the cicatrix and of the cord no swelling could be discovered. Glands of the groin normal. Abdomen presents in left hypochondrium a manifest arching, which extends on one part from the median line as far as the external border of the quadratus lumborum, and on the other part from the border of the false ribs with which it seems continuous to the umbilical line. On a level with the iliac fossa in forcing the fingers deeply into the pelvic cavity, nodosities are perceived which must be degenerated glands. Respiration normal. Patient has no cough. I did not conceal from Madame L. that I regarded her child's condition as beyond the resources of art. Notwithstanding this prognosis, the family determined on having recourse to homœopathy, and a second time I ceased to see my patient. Three weeks after I was called in afresh. The promises of the homœopath had been belied by the result, and the unfortunate child, pale, drawn and emaciated, had arrived at the last moments of its existence. The abdomen had become larger and contained evidently fluid; the respiration anxious, frequent, interrupted by paroxysms of a short dry cough.

No appetite, fever in the evenings. The cicatrix continued healthy. Death occurred in the first days of October. With difficulty I obtained permission to make an autopsy. The cord was healthy starting from cicatrix to an extent of four centimetres; at this point a sort of fibrous cord began, hard, resisting, formed evidently by one or several lymphatics, full of cancerous matter. This cord bordered on a tumor, softish, elastic, which was nothing else than an hypertrophied lumbar ganglion. All the ganglions in this region had undergone a similar change. The principal tumor was constituted by the spleen, which was very large and presented several nodosities, one the size of the fist. Both lungs were infiltrated with nodules, varying in size from millet seed to a hazel nut. Under the microscope these tumors were recognized of the character of enchondroma (myxochondrome).

Correspondence.

To the Editor of the CANADA LANCET.

SIR,—Will you kindly allow me space in your journal to call the attention of the Medical Council and the profession generally to what I consider a piece of gross mismanagement, and wilful determination to act illegally, on the part of the Western and St. Clair Division Medical Association.

At their regular meeting in Chatham in February, 1877, contrary to the spirit, as well as the letter of the law, the Association elected a chairman from its ranks for the current year. The Act distinctly says that "the representative in the Medical Council *shall be* ex officio chairman of such Division Association." I hold that since that time all the transactions of the Association are illegal and void. Section 6 of the Ontario Medical Act erects the medical profession into an incorporated body, having all the powers of a legally constituted joint stock company, and any departure from the course laid down by law for their guidance, subjects them to penalties which would follow an illegal act on the part of a joint stock directory.

By the 18th clause of the same Act, certain powers are delegated to "Division Associations," but the spirit of the Act evidently intends to retain a member of the Medical Council to preside over the deliberations of Division Associations.

This being the case, it devolves upon the Medi-

cal Council, at its next meeting, to correct the error which has crept into the Western and St. Clair Division Society.

I can see no other way by which the Association can be replaced on a proper footing, as a very considerable number of the members themselves show no inclination to conform to the *law*, but on the contrary seem inclined to act in defiance of all law, and I might with propriety add—common sense.

Fancy a deliberative body of men, acting in a judicial capacity under an Ontario statute, calling a meeting in a foreign country! Preposterous as this may seem, it was the last act of the Western and St. Clair Division Association; the June meeting was called in Detroit, Michigan, and attended by some ten medical men from Ontario and fifteen from the United States. Surely this was never intended by the framers of the Act, nor can it be endorsed by the profession generally. If persisted in it can only result in breaking up a Society, which at one time bid fair to be fraught with mutual advantage to its own members, and of untold benefit to the community in which they practised.

Yours, etc,

JOHN COVENTRY.

Windsor, July 15th, 1878.

To the Editor of the CANADA LANCET

SIR :—That Dr. Henry B. Baker of Lansing and a certain little clique in the profession of this state should feel as Dr. B. in his letter published in your last issue says they do, "*ashamed*" of what every rightminded member of the profession heartily approves, is quite in keeping with the general walk and conversation of these gentlemen in matters pertaining to the Michigan State Medical Society and this Medical School.

To the profession of Ontario who have so honestly and effectually grappled with the huge bugbear, homeopathy, the policy of Dr. Baker and his little clique here, (as expressed in the resolution whose signal defeat Dr. B. so pathetically bewails) must appear ridiculous and contemptible in the extreme. That policy would exclude all the graduates of the Ontario Schools, for have they not all appeared before and passed what Dr. B. designates a "mixed" board?

There is no homeopathic examiner on the board which our graduates have to pass, and there is no homeopathic teacher in our faculty. By what rule of grammar or of logic then can Dr. B. apply the term "mixed" to *our* graduates? If Dr. B. will kindly forward to you a list of the members of the profession here who are ashamed of the action of the State Society in repudiating as it did by an overwhelming majority the medical policy of Dr. B. and his clique, I will send you a list of members of the State Society composed partly of those known to be interested in certain poverty stricken *diploma mills* called Medical Schools; and partly of *those well known* to be *disappointed candidates for chairs or other positions in this institution*, and the uniformity of the two lists printed in parallel columns will undoubtedly amuse your impartial readers, while it will afford Dr. Baker and his friends more cause than ever to "feel ashamed."

I am, etc.,

DONALD MACLEAN.

UNIVERSITY OF MICHIGAN,

ANN HARBOR, 15th July, 1878.

Selected Articles.

TUNBRIDGE WELLS INFIRMARY.

TUMOUR OF THE BRAIN.

(Under the care of Dr. WARDELL.)

For the report of the following cases we are indebted to Mr. J. BULKLEY FOOTNER, House-Surgeon.

A. B., aged 38, a greengrocer by trade, was admitted into Tunbridge Wells Infirmary on March 5th, 1877, suffering from severe pain in the back of the head and neck. Twelve years ago, the patient had syphilis, but had been a fairly healthy man; he was married, and had several healthy children. Two years and a half ago, he fell downstairs, pitching on his shoulder and the side of his head; but he was not stunned, and sustained no scalp-wound.

His illness began two years ago with pain at the back of the head and neck. He felt weak, and had restless nights. These symptoms became worse, and, six months latter, he complained of his tongue feeling "too large for his mouth," and was unable to protrude it as far as formerly. He also spoke, as his friends expressed it, as if "his mouth were full of plums."

The secretion of saliva was also greatly increased,

necessitating frequent spitting. Nine months ago, he began to suffer from diplopia, due to paralysis of the left external rectus muscle of the eyeball. As he got no better, he was admitted into Tunbridge Wells Infirmary. On admission, he was seen to be an emaciated man, looking older than his years warranted. He complained of a severe pain situated at the back of the head and radiating down the back of the neck to both shoulder-blades. This pain was seldom absent, but was aggravated at night, and greatly increased by the recumbent posture.

There was complete paralysis of the left external rectus muscle of eyeball, and slight ptosis of the same eyelid. The velum pendulum palati was paralysed and drooped on the left side, and the uvula was deflected to the right. The tongue was exceedingly soft and flabby, and the patient could not protrude it beyond the teeth. The mouth was full of a viscid saliva. He was unable to turn his head without moving his body at the same time; nor could he raise his right arm above his head. A tumour, some deposit, or thickening at the base of the brain was diagnosed, and, as it was suspected to be of a syphilitic character, iodide of potassium was administered in fifteen grain doses, without, however, any beneficial effect. Sedatives were also given to allay pain.

The patient remained in the infirmary about one month, and then, as he was no better, went home to his family. While there, the pain became more intense and unbearable, and the patient's tendency was suicidal. He suffered from cough and dyspnoea during this time. Five days after leaving the infirmary, he suddenly complained of a suffocating sensation in his chest, and asked his wife for a mustard poultice. She went out of the room to get it, and, when she returned, he was dead.

Pist Mortem Examination.—On opening the head, the walls of the skull were found to be enormously thickened—nearly half an inch in thickness. The dura mater was very adherent. There was a quantity of serous fluid in the cavity of the arachnoid and ventricles of the brain. The brain-substance was healthy. On its removal, there was seen to be a tumour of the shape of a horse-chestnut, and double that size, situated beneath the dura mater, on the anterior and left lateral margins of the foramen magnum, projecting upwards into the cavity of the skull, and extending down the vertebral canal. By its pressure, the upper part of the spinal cord and medulla oblongata was flattened and pushed to one side. On cutting into it, the contents were found to be grey curdy pus, with several sequestra lying loose in the cavity of the abscess. The largest of these sequestra measured one inch long and half an inch broad. The bone round the cavity of the abscess was soft and carious. Neither the cavity of the thorax nor the abdomen was examined.—*British Medical Journal*.

THE CONSTITUTION OF MALT LIQUORS.

How often do we find people saying that they cannot get on without their beer. How often, on the other hand, do patients tell us that they cannot touch a drop of beer without it disagreeing with them. Indeed, there could not be a better illustration of the truth of the old adage that "what is one man's food is another man's poison" than the experience of different people with regard to the use of this homely and time-honoured beverage. In the *Chemical News* of May 3rd there is an able and suggestive paper on the Constitution of Malt Liquors and their influence upon Digestion and Nutrition, by Mr. J. J. Coleman, F.I.C., F.C.S. Considering the vast consumption of these liquors in this country, the importance of the subject in a social point of view, and the outcry that has been lately raised against the use of any kind of alcoholic beverage whatever, we shall make no apology for calling the particular attention of the reader to a question in which, as a medical man, he cannot fail to be interested.

A liquid, resembling in appearance British porter, and labelled "Hoff's Malt Extract," has been recently very much in vogue. It has been largely patronised by the medical profession, under the impression that it was a very nourishing and strengthening beverage, and was of great service in restoring the energies of patients suffering from faulty nutrition. Mr. Coleman having in his own person experienced the good effects of this extract in the usual dose of a wineglassful twice or three times a day, has been induced to investigate its composition and the circumstance to which its value as a wholesome and nutritious liquor should be attributed. The mean result of a number of analyses showed it to consist of—

Alcohol	...	...	4.00	per cent.
Extractive matter	...	...	8.12	"
Water	...	...	87.88	"
				100.00

The preparation is therefore a variety of porter or beer, and closely resembles in its composition the celebrated Bavarian Bock beer, which contains the same amount of alcohol, but rather less (7.20) extract than Hoff's liquor. The Bavarian beer was much praised by Liebig, who ascribed its "precious quality" to a peculiar process employed for fermenting the wort—that is, fermentation from below. It may also be remarked that Hoff's liquid is something more than "malt extract," as it contains alcohol, and the usual quantity of carbonic acid gas which causes any ordinary fermented liquid to froth up when liberated from the bottles containing it. "But," says Mr. Coleman, "this liquid of Hoff's produces, on evaporation to dryness, an extract

which differs from the solid extract usually obtained from British beers. Malt extract obtained from such sources contains a large percentage of crystallisable sugar, whilst that from Hoff's liquid is almost entirely constituted of the dark-brown uncrystallisable extractive matter present, but in less proportion, in the beers of this country."

The most interesting question for consideration is: To what constituents of Hoff's liquid are to be attributed its marked physiological effects? Relying upon the evidence of Drs. Edward Smith and Richardson with respect to the action of alcohol on the system, Mr. Coleman rejects the idea that the spirit in the "malt extract" has anything to do with its dietetic virtues. And even on the assumption that alcohol is a food, he considers that the quantity of carbon contained in the alcohol present in Hoff's liquid is so small (not more than 150 grains) in proportion to the quantity (from 4,000 to 6,000 grains) consumed daily by an average man that it could add very little to the nutrition of the body. But Mr. Coleman very justly observes, although these liquids have no food value of any importance, may they have the power of influencing the digestion of other food? If the extractive matter of beer and porter be really malt extract—that is, if it possesses the qualities of original malt—then the question is answered affirmatively. It is well known that if lukewarm water be poured upon fresh bruised malt a certain principle dissolves, which, from the difficulty of separating it in the pure state, has hitherto evaded chemical analysis. This substance, called diastase, is a ferment, being capable of converting an indefinite quantity of insoluble starch, through the stages of soluble starch and dextrin into the final product, glucose or grape sugar.

For reasons we cannot here mention, malt liquors may contain little or no diastase; but the nature of these ferments is very obscure, and it occurred to Mr. Coleman that the extractive matter of our ordinary malt liquors might contain the elements of a ferment in some latent form ready to be called into activity during the process of digestion. Now it is obvious if malt liquors exert a solvent action upon starch (a substance which constitutes 47.4 per cent. of wheaten bread), the phenomena can be investigated externally to the stomach, provided the necessary precautions be taken. Consequently, Mr. Coleman instituted several series of experiments to test the solvent action of Hoff's liquid and ordinary beers upon substances containing starch. For the details of these experiments we must refer the reader to the original paper; suffice it to say, that experimental proof was obtained that 4.82 grms. of bread, or about 20 per cent. of its constituent starch, could be dissolved by the agency of Hoff's liquid. It was also found that ordinary beer possesses a solvent power similar to that of Hoff's liquid, but to an inferior degree. Thus Burton ale,

Wrexham ale, London porter, and Hoff's liquid dissolved 15, 26, 40, and 60 per cent. of starch respectively. Thus it was not the richest ales coming from our large breweries which afforded the best result; which may be explained in two ways—either from the fact that in large breweries the diastase of malt is made to go as far as possible, by using raw grain with the original malt, or, secondly, as suggested by Dr. Wallace, from the excess of alcohol in strong ales precipitating the diastase before it reaches the consumer.

In an eighth series of experiments all sources of error existing from the action of the malt liquors upon the gluten of the bread were removed by using pure starch, and the result was as satisfactory as those obtained from previous experiments. Chemically it is interesting to know into what substance or substances the starch is transformed; whether into ordinary dextrin, Bechamp's soluble starch, Dubunfrants' maltose or ordinary glucose; but at all events, Mr. Coleman's experiments appear to have established a food value for malt liquors not before known, and if the results of his investigations are confirmed by other chemists and physiologists, the poor man's beer will not be so much at a discount as it has been lately, while the known action and properties of malt liquors will enable the practical physician to judge in what cases they may be beneficially prescribed.

We cannot, however, conclude this article without protesting against the assumption that the action of the alcohol present in malt liquors (which is generally pure and produced by internal fermentation) is to be altogether ignored in accounting for their therapeutic or dietetic effects on the system. If the extractive matter of malt liquors may "have the power of influencing the digestion of other food," may not the very moderate quantity of pure alcohol which they contain act in the same indirect and beneficial manner? Indeed, from time immemorial, wine, taken in moderate quantity at the principal meal, has been considered a promoter of digestion, an effect it may in many people of weak stomachs certainly lay claim to if only in virtue of its action upon the brain, for it will be generally admitted that exhilaration of spirits and a happy frame of mind are very favourable to digestion. But whatever its *modus operandi* may be, action of some sort, good or bad, it must have; it cannot be inert; and therefore, in those cases in which Hoff's malt extract, or any other malt liquor, has been found to benefit patients suffering from faulty nutrition, it may be presumed that the alcohol which they contain has at least some share in producing that effect.—*Medical Press and Circular*.

SCARLET FEVER has been imported into Wimbledon. At a private school in the locality twenty-two boys have been attacked with the disease. So far, one fatality only has been recorded.—*Lancet*.

UNUSUAL OCCURRENCE IN THE ATTEMPT TO REDUCE A DISLOCATED HUMERUS.

BY THOMAS SMITH, F.R.C.S.,

Surgeon to St. Bartholomew's Hospital.

The following is an account of a case where, in an attempt to reduce a dislocated humerus by manual extension, the anterior integumental fold of the axilla was torn, and the pectoral muscles were ruptured. I am anxious to place the case on record as showing that the above-mentioned catastrophe can take place without the employment of pulleys, and that its occurrence is no proof that undue force has been employed in the attempt to reduce dislocation.

My previous experience would have led me to believe that it was impossible to produce so dire a result with the means used, yet I am now convinced that in this particular case the upper extremity would have been completely torn from the trunk had the extending force been continued for a few seconds beyond the time when it was abruptly arrested.

The gentleman who made the extension was my then house-surgeon, not an athlete, nor was he supposed to possess any extraordinary physical force. He was of medium stature, compact and well knit in his frame, and he had not, I should say, put out his full strength, as he was making sustained extension, and I had not asked him to make his final effort when the accident occurred. The hollow of his foot seemed to pass through the anterior fold of the axilla, as if the latter were formed of wet paper. To an observer it was as if the foot cut its way through the tissues, and not as if these were torn by excessive stretching. There was nothing about the patient to make one suspect extreme degeneracy of tissue, though his occupation (that of a cellarman) was of an unfavourable kind. On other occasions I have employed far greater force without mischief to patients whose appearance was much more characteristic of degeneracy. Had the catastrophe occurred under the use of the pulleys, I should not have been held blameless, for no mere assertion as to the moderation of the force employed would have had much weight in face of the effect produced.

J. E—, aged fifty-eight, a cellarman, was admitted under Mr. Thomas Smith's care, April 30th, 1877. Eight weeks before admission he fell on his elbow, his hands being in his pockets at the time. As the result of this accident he suffered from paralysis of the radial nerve, and his arm lost its ordinary mobility, for which he was treated in various ways. On examination at the time of his admission he was found to have suffered a subcoracoid dislocation of the left humerus, which had escaped notice. On May 3rd, with the concurrence of the surgical staff of the hospital, he was put under the

influence of ether, and after Mr. Smith had manipulated the limb so as to break down recent adhesions, an attempt was made to reduce the dislocation. The house-surgeon sitting on the ground by the side of the patient, placed his left foot, covered only by a thin sock, in the axilla; a jack-towel was fastened by a clove hitch round the arm just above the elbow, the other end of the towel being passed behind the house-surgeon's shoulder, who also made extension by pulling from the patient's wrist. No other force was employed, and no assistance was given by by-standers. After extension had been maintained for a minute or so, the whole of the anterior fold of the axilla, integuments and muscles gave way like "rotten leather." The cavity of the axilla was laid widely open, and pretty free hæmorrhage took place. This was at once arrested by pressure, the patient was lifted on to the operating table, the bleeding vessels were secured, the axilla was washed out with carbolic solution, the wound was partially closed, and drainage established by lint soaked in carbolic lotion.

The pectoral muscles were found to have been almost completely torn, and the large vessels and nerves, with the head of the humerus, were laid bare, but not torn; the dislocation was reduced with ease. No immediate constitutional disturbance followed the accident. The patient took his food well, and his temperature was normal for four days; but as the discharge set in, his strength began to fail, and he died on the ninth day from exhaustion.

On post-mortem examination, diffuse suppuration was found to exist in and around the axilla, and the parts about the upper and middle lobes of the right lung were in a state of consolidation. The heart was flabby; the liver large, pallid, and fatty; the kidneys normal; the spleen large, soft and semi-fluid; vessels of the size of the tibials were rigid from calcareous degeneration. The muscles generally were paler, softer, and more flabby than normal. At the seat of injury nothing could be ascertained as to their condition as regards degeneracy owing to the amount of sloughing that had taken place. No microscopical examination was made—*Lancet*.

TEMPERANCE COFFEE TAVERNS AND "TEMPERANCE STALLS."

At the annual meeting of the East-end Juvenile Mission, known as Dr. Barnardo's Homes, held last Wednesday at Exeter Hall, the Lord Chancellor, who presided on the occasion, remarked that "Dr. Barnardo was the first to institute the system of temperance coffee-houses. He was able in the East-end to secure a magnificent gin place and a

large shop. They were fitted up in an extremely attractive way, and there the working-man escaped the ruinous temptation to drink which had been the curse of the metropolis. One of those coffee palaces during the year had realised a sum of £2,300, its expenses amounting to £2,000. In the mission rooms there were evangelistic addresses, and he had himself seen one of these rooms crowded from end to end with most anxious and inquiring auditors to hear a plain, simple address, which had nothing in it to attract except the truth and simplicity of the Gospel. It had been determined to add a medical mission, through the exertions of which there would be a power of carrying the message of the Gospel to people whom they could not otherwise approach."

There can be no doubt that the establishment of these attractive and well-conducted coffee-houses is one of the best means that could be adopted to check the enormous amount of intemperance prevalent in the metropolis; and therefore we are glad to see that the establishment mentioned above has turned out such a success. In connection with these places, we may also notice the "temperance stalls" that are springing up in different parts of the town. They are simply covered refreshment stalls similar to those seen on the Continent, supplied plentifully with tea, coffee, lemonade, &c., but no intoxicating liquors whatever. By such measures we may hope in time to see more good done in the cause of temperance and towards repressing the drunkenness of the working-classes than all the lectures and demonstrations that are being continually given in favour of the "total abstinence" movement and the absolute proscription of all kinds of alcoholic beverages under any circumstances whatever.—*Medical Press*.

GOITRE AND THE HÆMORRHAGIC TENDENCY.

BY R. BRUCE LOW, M.D.,

Medical Officer of Health, Helmsley Rural Sanitary District

In the course of my reading, I have been unable to find any mention of the fact that goitrous persons are peculiarly subject to hæmorrhages. As I reside in a district where goitre abounds, I have had opportunities of remarking the frequency of flooding among the women, and more especially among the women with goitres. During the last few months, I have collected notes of one hundred and eighty-three cases of goitre. Of these, there were ninety women who had borne children, and, out of these, thirty-one were habitual flooders; besides these, a considerable number of others showed a hæmorrhagic tendency, especially at their menstrual periods. There appears to be a great predisposition to flooding in the district, so much so,

that the medical men of the neighbourhood are united in their opinion that more care and attention are requisite after labour is over here than in any other districts. Even with the greatest care flooding sets in. For example: in a case where a goitrous woman was confined safely and the placenta removed, I grasped the contracted uterus through the abdominal wall, and held it firm for more than an hour; but feeling exhausted, I transferred my post to an attendant, with the effect of seeing the woman flood and faint exactly four minutes after I left hold of the uterus. In cases, again, where labour is over before the arrival of the medical man, flooding is very apt to go on to a very serious extent. The tendency to flood is not entirely confined to goitrous women in the district, but these are usually the worst cases.

The etiology of goitre is still far from clear; but it is now accepted that the disease is endemic in certain well-defined geological districts, and also that it may be produced by some bad hygienic conditions, *e. g.*, dampness, overcrowding, and bad ventilation. The water-supply of the Helmsley district is pure and good, but, owing to its situation on the oolitic lime-stone formation, the water contains carbonate and sulphate of lime and, in smaller quantity, magnesia. The permanent hardness is not great, the water being used for washing and other domestic purposes. It contains no trace of iron. The district is extensively wooded, and is intersected by numerous small valleys, which are constantly filled with damp foggy emanations. The dwellings are small, badly constructed, ill-ventilated, and generally overcrowded. Many of them are in bad repair. The people for the most part, are engaged in agricultural pursuits. Intermarriage has hitherto prevailed to a great extent, the isolated position of the district having prevented the inhabitants from mixing with those of other neighbourhoods.

Many medical men have called attention to the evils which arise from the continued use of water impregnated with lime and magnesian salts. Dr. Murray, in an able paper in the *BRITISH MEDICAL JOURNAL* for September 28th, 1872, mentions a number of diseases which arise from water so contaminated. Among others, he names goitre, cretification of the arteries and valves of the heart, rheumatic arthritis, and calcareous deposits in various organs. In this district anæmia is soon produced, when young females, especially from the South of England, come to reside here. This is a most frequent occurrence amongst the domestic servants of the neighbourhood. The majority of the young girls, living in the small farm-houses scattered over the moors and in the sequestered valleys, are highly anæmic in appearance, and are often under treatment for that condition.

Pregnancy has a powerful effect on goitre. Many bronchoceles appear during the first pregnancy, or

are noticed immediately after the first labour; the popular notion being that the swelling is due to the exertion of bearing down during the expulsion of the child in delivery. An eminent continental observer has shown that, in pregnancy, there is enlargement of the thyroid gland; there are fewer red blood-corpuscles, and there is a watery state of the blood; the tone of the system is reduced, as in those who show a goitre from bad hygienic conditions or surroundings. The thyroid is a vascular organ; and those causes which reduce the tone of the system reduce the tone of the vaso-motor nervous system and dilate the vessels: thus the circulation is rendered slower. This allows exudation of white cells to take place into its tissue, and produces degeneration of the thyroid gland. Many goitres disappear after the climacteric period.

The results of these observations may be summed up as follows.

1. The water-supply in limestone districts has a powerful influence in deteriorating the blood, causing dyspepsia, anæmia, and a want of contractile power in the blood-vessels, as shown by the development of goitre and tendency to hæmorrhages, more especially flooding in child-bed.

2. Goitre and the hæmorrhagic tendency are aggravated, and sometimes even produced, by certain conditions: e.g., overcrowding, bad ventilation, and damp wellings.

3. Pregnancy assists in the development of goitre and the hæmorrhagic tendency.

4. The predisposition to goitre and "flooding" is affected by consanguinity and heredity.

5. The best treatment for both conditions is change of locality, and the prolonged administration of some preparation of iron—*British Medical Journal*.

CÆSAREAN SECTION IN A DWARF;

RECOVERY OF MOTHER AND CHILD.

By E. M. Wrench, F.R.C.S. Eng.

Mary T—, aged twenty-eight, single, 4ft. 3¾ in. in height. I was sent for by my partner, Mr. F. G. Atkins, of Bakewell, on the afternoon of March 12th, 1877, to Stanton Lees, a hamlet on the side of one of the steepest Derbyshire hills, unapproachable by a carriage, to a house where even the coals had to be carried up on men's backs. I found he had been twelve hours with a case of labour in a dwarf, who, though twenty-eight years of age, was not larger than many girls of ten. She was not deformed, but simply small, her hands, feet, and head being quite in proportion to her height. She was pregnant by a large quarry-man, and had gone her full time, the child proving to be a well-formed and rather large boy.

At 6 P.M. I found her not much exhausted,

though she had been about twenty hours in labour and the waters had escaped early. The presentation was difficult to make out, but was apparently the head, with a succedaneum pressed through the brim of the pelvis, the os uteri being dilated, high up, and out of reach. The child was lying with its long axis at right angles to the mother's spine; the vicinity of the chest to the pelvis having necessitated the expansion of the uterus directly forwards, so that it was lying almost anterior to a line drawn from the ensiform cartilage to the pubes, and projected in a most unusual cone, of which the umbilicus was the summit. As a consequence, the feeble efforts at expulsion were not in the axis of the pelvis, and there was not the least descent of the head during the pains. The pelvis was so small that it was quite impossible to introduce the hand, and it was evident that delivery *per vias naturales* would be impossible without evisceration, and that even then it would be attended with almost insurmountable difficulty and risk. We therefore decided to perform the Cæsarean operation; but I was seven miles from home, without the necessary instruments, and the cottage was small and dark, so we decided to give her a large opiate, and operate in daylight in the morning.

March 13th.—9 A.M.; I found her very little altered from what she was last night. She had had very little sleep, but had had no very severe pains, and her pulse was weak, but regular. Having placed her comfortably on a table, drawn off the water, and mapped out where (from the louder souffle) I imagined the placenta to be attached on the right of the median line. Mr. Atkins who was my sole assistant, administered chloroform, followed by ether. Under the former, the pulse, which was previously weak, became flickering; but when the other took effect it greatly improved. I operated in the usual manner by an incision eight inches in length in the median line, four inches above and four inches below the umbilicus. I was somewhat embarrassed by finding the walls of the abdomen and uterus no thicker than cartilage paper, and the placenta extending about an inch across the median line. I cut through it before I was aware of it, and the blood obscuring my view, I for a moment mistook a very thick coating of vernix caseosa on the child's back for the membranes, and made a slight incision into it. Discovering my mistake (and do not our mistakes often teach us more than our successes?) I speedily removed the child, and when the uterus began to contract firmly, the placenta, without any very serious hemorrhage. I passed my finger from above into the vagina to make sure it was pervious, and, when most of the hæmorrhage had ceased, I put no sutures into the uterus, but closed the wound in the abdomen, with eight deep iron-wire sutures, adhesive plaster, and a bandage. A few

knuckles of intestine protruded, but were easily replaced.

14th.—Has passed a quiet night, free from pain. (She is naturally very quiet and uncomplaining.) Pulse 160, weak; temperature 100°; respiration 19. Water drawn off by catheter.

15th—Quite easy. Pulse 140; temperature 100°; respiration 26. Has passed water freely. Lochia free from smell and abundant.

16th—Easy. Taking milk and beef-tea well; no stimulants. Asks for solid food. Pulse 126, full; temperature 100°; respiration 20.

17th—Pulse 132; temperature 100°; respiration 20. Bowels moved three times without medicine.

18th—Pulse 130; temperature 101°; respiration 20. Very little discharge from the wound. Three sutures that were cutting their way out removed.

19th—The same. Bowels moved twice. Two more sutures removed.

20th—Bowels moved once. Slight tympanites.

21st.—Pulse 121; temperature 99.7°; respiration 20. Two sutures removed. Some sanious discharge like lochia, from wound.

22nd—The same. The discharge from wound more purulent. Abdomen much reduced. Wound gaping but healthy. The last suture removed. Bright-colored lochia flowing both from vagina and lower part of wound, where there is a small piece of uterine wall protruding.

23rd—Not so well; appetite bad; sudamina; no lochia; tongue coated; no increase of temperature.

24th—Better; tongue clean. Ordered quinine and mutton chop. Wound healthy. No lochia until the evening. Measures 24 in. around the waist.

26th—Improving. Slight hectic every evening.

29th—Much improved. Wound granulating and contracting. Appetite good.

April 4th—Complains of slight pain in left leg.

7th—Has phlegmasia dolens in left leg. Pulse 124; temperature 101.8°. Left calf 10½ inches, right 8 inches in circumference. Ordered ammonia internally; camphorated oil and cotton wadding to leg.

8th—Easier.

14th—Has gradually improved. Left calf now 9¾ inches, right 8¾. The wound in abdomen healed all but for one inch. Menses just now flowing freely from the wound, as well as from vagina. Allowed to sit up in bed.

24th—Has gone on well until last night, when the right leg began to swell, and she had no sleep. The left leg is now 8 inches, and the right 9 inches in circumference.

May 23rd—The wound in abdomen is almost healed. She has gradually gained strength, and she was to-day moved thirty miles, by road and rail, to New Mills.

Oct. 15th—She came at my request to show

herself. The wound has apparently healed, but she has three times noticed blood on her linen opposite the cicatrix, during the period of menstruation. I thought there might be some fistulous opening into the uterus, but though I sought carefully with a probe, I was unable to find any. The scar is somewhat puckered, 3¼ inches in length, 1 inch below and 2¼ inch above the umbilicus. She has grown fat, but only measures 26 inches over the hips down to pubes (as you measure for an inguinal truss); 8½ inches across from one anterior supra-spinous process to the other. The finger, when inserted into the vagina, feels in contact with the bones all round. She weighs 73lb., but is so small and child-like that she is allowed to travel for half fare on the railway.

I heard from her on the anniversary of the operation. She continues well, is regular every month, and still notices a few drops of coloured discharge from the cicatrix at each period. The child is alive, and is a very large child for his age. —*Lancet*, July 6/94

MEDICAL NOTES FROM THE TRANSVAAL.

BY S. K. COLTER, M.D., M.CH.

Croup—Tracheotomy—Recovery.

On September 11, 1874, I was called to see a child suffering from catarrh apparently. His age was about four years. The cough was not very troublesome or harsh then, but became so next day, and as he appeared a delicate boy, a stimulant cough mixture, consisting of carbonate of ammonia, ipecacuanha wine, and syrup of tolu in anised water, was prescribed. On the 11th, the harsh croupy cough was very troublesome, and towards night he began to suffer much from oppression of the breathing. During the whole of the day his bed was kept near the fire, and the steam of two kettles directed through bamboos kept a constant vapour about his head. At 2 a.m. on the morning of September 14, the dyspnoea being urgent, the sternum drawn in at each inspiration, and the lips livid, I performed tracheotomy (without chloroform). The result of this case was complete recovery.

Croup—Tracheotomy—Death.

On March 15, 1875, I was called in consultation to see a child aged about five months. On the 16th the surgeon in charge of the case had to leave town, and asked me to attend if called. The symptoms were, as usual, those of catarrh and progressive dyspnoea. The latter becoming so urgent during the day, and the face dusky, I operated, with apparent intense relief, the child falling into a quiet sleep. I delayed operation as long as pos-

sible (as my *confidère* had promised to be back early), but not too late, I think, were there not some unfavourable circumstances connected with the case—namely, the early age of the child, and secondly, bronchitic implication of the lungs. The steam of hot water was kept up carefully during the day and night, but in spite of all care the child died at 7 a.m. on March 17.

Regarding the performance of tracheotomy, I have come to the decision that I should hesitate to perform the operation again except upon a child who was at least two years old and intelligent; except that there was no lung implication whatever—and this is a case I have never experienced, having always seen some degree of bronchitis.

The act of coughing wholly depends upon the power of making a firm stoppage above the lungs, and the sudden relaxation of this stoppage constitutes a cough. Now, when a tube is in the trachea no more than a sigh is possible, unless the finger of the patient or some other be placed on the mouth of the tube and suddenly withdrawn; and not only this, but consentaneous action on the part of the patient is necessary: from this it at once appears what a difference age and intelligence will make in the operation. Even if there be no lung complication, there will yet be always a certain amount of mucous accumulation in the tube; and if the lungs are affected, this accumulation will be large; so that if the child has not the intelligence which is requisite, the lungs will slowly fill up hopelessly like a sponge in water, in a manner which inversion of the body to a slight degree, clearing of the tube, or any other measure, seems incapable of counteracting.

Vomiting Beetles.

In January, 1876, a Kaffir woman, aged about eighteen, came to me showing a sample of beetles which she had been in the habit of vomiting every day for some weeks. At intervals of about three days she vomited three or four dozen of them. There is a difficulty in sending a specimen, but it is quite unnecessary, as the beetle is exactly similar to the *Coleoptera* which hum about on a summer evening in England, with two outer dark brown scale-like wings, under which the real wings are. The only exception to the similarity is that there is a horn-like growth from the forehead and hence it is called the "rhinoceros beetle." Like those in England its habitat is in dung-hills, etc.

The remedy I prescribed was turpentine, which seemed to relieve her of them. I could gain no clue as to how they had been swallowed. The girl was much wasted, and suffered much from gastralgia and vertigo—*Med. Times and Gazette*.

THE CHIVALRY OF THE LANCET.—The "Red-Cross Knight," remarks a new weekly contemporary, "figures in numerous ancient ballads as a hero, and ready to go forth and battle with dragons

and other monsters." After the period of the Crusades, however, we hear little of him, and the world has come to regard this dragon-encountering paladin as somewhat of a myth. It has been reserved for the nineteenth century to recall him to life. The surgeons who recently represented English humanity on Eastern battle fields, were truly "Red Cross Knights." With the Geneva badge on their arm, they have encountered dragons more terrible than any Amadis of Lancelot ever slew—the twin horrors of war and pestilence. The latter has succeeded in laying many of them low. Under the auspices of the various English Committees—Stafford House, the Red Cross, the Red Crescent, and the Turkish Compassionate Fund—a total of 105 medical men, mostly surgeons, have been sent forth. Wherever Russian and Turk were employing themselves in the fell work of mutual slaughter, in the shadow of Kars, amidst the horrors of Plevna, and in the fever-stricken hospitals of Ezeroum,—the "Christian Knights" have well and nobly done their duty, and a fatal duty it has proved. Nearly one-third of their number were stricken down by fever, and, in ten of these cases, the fever has proved fatal. Thus, literally, has our surgeon-regiment been decimated. England may well say, of each dead hero, as was said of the great soldier, whom fatal sickness struck down in the very moment when he and his colleagues had succeeded in turning the tide of the Indian mutiny—

"The prize he sought and won
Was the crown for duty done."

And the same deathless laurel must be accorded to the heroic women who, as sisters of charity, have also so nobly toiled and died.—*Students Four. & Hospital Gaz.*

NEW REMEDIES AND NEW APPLICATIONS OF OLD ONES.

CAUSES OF DECAY IN TEETH.

The primary cause of decay in teeth may undoubtedly be due, in most cases, to the inheritance of a *bad constitution*, but this may also be acquired by improper diet, and the prevalence of bad teeth in children may often be attributable directly to the too great whiteness of the bread used. It is unnecessary here to refer to the injury to teeth which may arise from the use of certain drugs. Brown bread contains or has not been relieved from the phosphate of the wheat, and a good supply of this is necessary for the building up, nourishment and preservation of the teeth; this is withheld from our children in using white bread, hence their teeth suffer for it. The remedy at once suggests itself; give them brown bread with all the native

elements intact, and it will not only nourish the teeth, but the *bran* is a muscle-feeding element which is of great value to the development of their muscular system. Special cases may call for special medication when the hypophosphates of lime or the phosphate of wheat (as prepared by Messrs. Devins & Bolton, Montreal) with lime water, will furnish the necessary elements of growth and stop the decay as by magic spell. Experiments in feeding children prove the success of this plan, of which one instance will be sufficient illustration.

An eminent barrister, whose great intellect does not overlook ordinary matters in the contemplation of great things, having discovered that all his children were losing their teeth before they were fifteen, resolved to try what restoring the lost material of the teeth would do to save them. The children were made to eat brown bread, (which contained the phosphates), and had also given to them phosphates of wheat and lime water, mixed in their tea or in water, which *at once* stopped the decay. This simple plan is worthy of a trial by all whose teeth are showing signs of premature decay, especially by young women, whose teeth is a most important feature, and ought to be preserved.

SUN STROKES IN ST. LOUIS.

The *St. Louis Globe-Democrat*, in its account of the intense and fatal heat in that city, makes the following statement :—

Of the total cases of *coup de soleil* reported there were but a very few which could not be immediately traced to the use of stimulants. Somehow an impression has gained general indorsement that a perspiring man can not fall before the heat. It is true that one of the earliest symptoms of prostration is the closing of the pores of the skin and an absence of perspiration. That is a symptom, and there is no more reason in trying to avert the impending disaster, by treating it, by forcing an unnatural and not healthy perspiration by the lavish use of beer or whiskey, than there would be in attempting to cure a case of typhoid fever by removing the heated patient to a refrigerator.

Such use of stimulants but increases the temperature of the blood, and the stroke when it does fall, does so with double force and with the accompaniment of horrible convulsions and utter derangement of the brain.

[The foregoing is sound doctrine, as viewed in the light of modern medical thought, but practitioners are not so much to blame for following the guidance of standard authors, who direct that the remedies upon which *it is probable*, (a saving clause), most reliance may be placed, are

cold to the scalp and the frequent administration of stimulants. Dr. Edward Smith, long ago, pointed out that alcoholic stimulants and coffee, *lessen* the activity of the skin during the first stage of their digestion, but that *tea* has an opposite effect. Now as the three most urgent wants in sunstroke are the cooling of the body, increase of perspiration, and removal of listlessness and oppression, it will at once be evident that upon no hypothesis are alcoholic stimulants admissible, but hot applications to the head, hydrobionic acid, bromide of ammonia and copious draughts of hot infusion of tea.]—ED. LANCET.

USE OF LOBELIA IN HYDROPHOBIA.

A Doctress—Mrs. J. P. Dimond, M.D., of Cambridge Port, Mass., writing to the *Journal of Materia Medica*, says :

“In reading your Journal which I peruse with interest, I occasionally see an article on hydrophobia, a disease which I think has ever baffled the skill of physicians in all countries.

Allow me to give you a receipt which from study of medicines I think might be very valuable.

I should use it in preference to anything I have ever heard of, if I were bitten by any rabid animal. If you think it of any value you can publish it ; if not, cast it aside.

When a person is bitten they need immediate attention. As soon as possible after being bitten apply tobacco—plug tobacco is the best—wet with water; keep that bound on until tincture of lobelia can be obtained, then use the tincture or cotton saturated with it, and kept wet, also give tincture of lobelia as soon as possible in half teaspoonful doses, once in three hours ; then three times a day for three days ; and make a strong tea of hawk-weed, and drink very freely of it for two weeks, every day. The lobelia may be taken in a very little water. To cut or cauterize the parts bitten I think is of but little use, the virus passes so quickly through the system. In my opinion the poison must be killed in the blood. Hawk-weed is an antidote for the poison of the rattle snake.”

[Hawk-weed is an indigenous plant with which the outside medical world is unacquainted. Perhaps the learned correspondent would give its botanical class and order and generic term, that we may be rendered more familiar with so valuable a remedy.]—ED. LANCET.

ERGOT IN CONGESTION OF LUNGS.—Ergot and Ergotine are now being administered with marked success in cases of congestion of the lungs, based

upon the physiological action of the ergot in causing contraction of the capillaries. The value of ergot as a therapeutic agent, seems to be wholly due to the fact that it produces contraction of involuntary muscular fibre, whether in the coats of the blood-vessels, in the uterus, or in the bladder. It has been found by experiment with ergotine subcutaneously that the action was more prompt and decided, that the pulsations of the heart were lessened by 4 to 6 beats per minute, while the sphygmograph demonstrated a very decided contraction of the calibre of the blood-vessels.

In *hemorrhage* from the lungs, stomach, bladder, uterus, nostrils or bowels, ergot is found to be most successful. Internal hemorrhoid are cured by injection. When a prompt action is desired, in the absence of the *ergotine*, thirty to forty drops of the fluid extract may be used hypodermically every hour until the result is obtained. Many claim this to be more reliable than many preparations of ergotine, and no ill effects follow its use.

Besides being a valuable *hemistatic* in the diseases indicated, it is valuable in weakened and paralyzed conditions of the bladder, and is indispensable to the treatment of cases dependent upon a hyperemic condition of the vessels of the spinal cord, as in cerebro-spinal meningitis.

In hemptysis we have tried it with success by both methods of administration. It acts like a charm.

BELLADONNA IS ALSO A VALUABLE REMEDY IN COLLAPSE:—Reinard Weber, M.D. recommends the use of belladonna as a restorative in collapse, for which it has been customary to administer camphor, musk and alcoholic stimulants. He has also employed it as an antidote to the toxic effect of digitalis, and reports a case in which a fourth of a grain of the extract had the effect of removing symptoms of collapse from digitalis. In a case of gastro-enteritis in a woman aged 41 years, a grain of the extract, with twenty drops of tincture of opium and $\frac{1}{2}$ drachm of chlorate of potash, relieved the symptoms of failing heart-action. And in a third case of a little girl of six and a half years, $\frac{1}{4}$ of a grain relieved the coldness of the surface, difficult breathing, and bronchial congestion occurring in the fourth week of a typhoid fever. He expresses his belief that, when used in medium or small doses, belladonna, through its action on the vaso-motor system, will be of service in cholera collapse.—*New Remedies*.

VIBURNUM PRUNIFOLIUM IN PAINFUL DYSMENORRHOEA.—The fluid extract of viburnum prunifolium is mostly employed as a prophylactic in threatening abortion, and in cases of habitual abortion, in doses of $\frac{1}{2}$ –1 teaspoonful four times daily. But in dysmenorrhœa, accompanied with pain and loss of blood, it greatly alleviates the

symptoms if administered from a few days before, until a few days after menstruation. In cases of spasmodic or neuralgic dysmenorrhœa it should be combined with sedatives. The fluid extract should be prepared from the bark of the root and young branches. The ordinary dose is 1.8 to 3.75 grammes ($\frac{1}{2}$ to 1 drachm) every two to six hours.—*Gynæcol Trans. in Ph. Zeit. f. Russl.*

Perhaps there is no more troublesome or obstinate affection to treat than Pruritus in either male or female. We have had difficulty enough with both, and appreciating the relief any suggestion may be, give the following treatment of Pruritus Vulvæ, as suggested by M. Duhring, in his late work on skin affections. He mentions most favorably camphor, chloral, and borax, variously combined :

R. Chloral.....grs. x to xxx.
Water..... 3 i.

Used as a lotion to the parts :

R. Boracis.....3 iv.
Morphiæ sulphatis.....gr. viij.
Glycerine.....3 ss.
Aquæ.....viiss.

M.

These preparations, a little weakened, may be used by injection. For this purpose the following has been found highly efficacious :

R. Nitrate of alumina.....3 i.
Aquæ.....3 i.

M.

As an ointment the following is strongly recommended :

R. Camphoræ
Chloralis hydratis.....ää 3 i.
Ungt. aquæ rosæ.....3 i.

POPULAR REMEDY FOR AGUE.—One of the most successful combinations ever tried in *aguish districts* is the following: Take of butter apple (colocuth) sliced 1½ oz., quinine, grs. viii, calomel grs. ij, Holland gin 1 qt.; mix and let stand for eight days, dose, a teaspoonful thrice daily in 1st stage directly after fever has abated, and two teaspoonsful a day continued until the attack has been broken up, one teaspoonful a day for some days after, to prevent relapse.

SKIN ERUPTIONS.—Among the peasants of some parts of Canada, an ointment made from the under bark of the sasafra infused over a slow fire in sour cream, and set aside for use, enjoys an excellent reputation.

HEALING BALM.—The tender buds of the Balm of Gilead tree bruised and similarly treated with cream, is made into an ointment for healing wounds and old sores. It is extensively used and possesses considerable healing power.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. McMILLAN, St. John, N.B.; J. M. BALDWIN, 805 Broadway, New York, and BALLIERE, TINDALL & COX, 20 King William street, Strand, London, England.

TORONTO, SEPT. 1, 1878.

VARIATIONS OF PULSE IN DIFFERENT POSTURES.—ARE THEY TO BE CONSIDERED AIDS TO DIAGNOSIS?

The numerous Life Assurance Companies very properly endeavor in framing the questions for the medical officers of the respective offices to answer, to include every subject likely to have a bearing upon the real condition—as regards immunity from disease—of the individuals offering themselves for insurance; and in proportion to the careful manner in which the medical referees discharge the work assigned, will the success of the company and their consequent ability to declare large bonuses depend. As a rule, the questions are strictly pertinent to the object in view, and are well calculated to determine whether functional derangement, organic change, or hereditary predisposition to disease exists—no ground for the question of immaterial investigation existing. A short time ago, the agent of an American Insurance Company in good standing, presided over by a distinguished physician, brought to us an applicant for insurance. On looking over the questions for the medical examiner to answer, we noticed one that we had never observed in other companies, and the question arose, Is it really material or not, is it calculated to throw light on incipient heart trouble, and would it be just to applicant to make the answer to the question an important factor in the consideration of acceptance, or refusal. The, to our mind, *sub judice* question, was, "State the variation of pulse in sitting, horizontal and erect postures." If important aid for accurate conclusion is to be derived by attention to the pulse in different postures, the sooner the Insurance Companies place the question in their list the better. However, as the question may fairly be considered

a moot one, it may be well to give it here a brief consideration, and invite our subscribers to ventilate the subject in our columns. Dr. McDonnell of Belfast was the first we believe to notice the difference of the pulse in the perpendicular and horizontal postures. He mentioned this fact to Prof. Thomson of Edinburgh, who acknowledges it in his work on Inflammation. Prof. Graves has also a paper on the subject in the Dublin Hospital Reports. The learned Professor declines to advance a plausible conjecture as to the reason why change of position affected the frequency of the pulse. Dr. Wood, in his "Practice of Medicine," remarks, "The frequency is usually greater in the morning than in the evening, after a full meal than before it, in the standing than in the sitting posture, and in the sitting than in the lying. The effect of posture may be resolved into muscular exertion." Dr. R. B. Todd has observed that in some instances of great debility of the heart, the rule of increased frequency in the erect position does not hold, and may even be reversed. In the inverted posture of the body the frequency is diminished, probably from pressure on the brain. Dr. Graves remarks on this subject, "It is very singular that a posture so unnatural as the inverted should produce no effect on the frequency of the pulse as compared with the horizontal, while a change from the latter to the erect, both natural postures, is attended with so great an acceleration." To test the question of muscular exertion being the cause of increased frequency in the erect posture, Dr. G. contrived means for placing the body in any desired position without the necessity for muscular exertion on the part of the subject of the experiment. This was effectual, and it was found that when the posture was changed by means of this contrivance, the difference between the frequency in the horizontal and erect postures was not less than when muscular exertion was used. The theory of muscular exertion thus being the cause, is set at rest for ever. Dr. G. continues, "I now anticipated that if the body was placed with the head down and feet up, a still further retardation of the pulse would be produced. It was, indeed, natural to be supposed from the preceding experiment, that posture alone was the cause of the retardation observed in the body when placed horizontally, and, consequently, that this effect would be augmented on still more depressing the head,

and that the maximum of retardation would occur in the inverted position. Here, however, as it not unfrequently happens, preconceived ideas were not found to accord with experiment, and no further retardation was thus effected; neither, on the other hand, was it accelerated beyond the number observed in the horizontal position."

In the Dublin "Journal of Medical and Chemical Science," No. xv. vol. 5, will be found an excellent article on this subject by Mr. Blackley. This writer solves the difficulty why change of position affects the frequency of the pulse, with what success our readers must determine. He says, "I believe it will be readily conceded, that the action of the heart in a strong and healthy individual, while in a state of rest, is uniform and equal: that it is possessed of a power sufficient to expel a certain quantity of blood at each contraction of the left ventricle, which power is necessary to overcome the obstacles presented to the egress of the blood. Let us suppose, for instance, that the heart of a healthy man in the erect posture beats sixty times in a minute, and at each beat expels one ounce of blood, sixty ounces per minute will of course be expelled; but if the power of the heart be increased or diminished, we must expect a corresponding alteration in the number of beats. Thus, if the power be increased one-tenth, it will require but fifty-four beats to expel sixty ounces in a minute; but if it be diminished by one-tenth, it will require sixty-six beats." The writer goes on to explain the relative force of resistance to the heart's action in the erect and horizontal positions; his views certainly merit careful consideration. They are as follows: "In the former—erect—we have the column of blood in the arch of the aorta assisted by that in the carotids pressing on the semi-lunar valves, and opposing the egress of the blood from the left ventricle. Next, we find that, the arteries being all full, a considerable *vis a tergo* is required to force on the blood which they contain, especially through the carotids, where it must be driven upwards. But by far the greatest obstacle to the action of the left ventricle, and that which is the chief cause of the non-permanency of the pulse, is presented by the veins; if the arteries require the *vis a tergo*, their veins require it in a much greater degree, not only from the nature of their structure, which is inelastic, but that their contents contrary to the law of gravitation, must for the most part be

forced directly upwards to the heart. In the horizontal position those obstacles are lessened or removed: the blood in the carotids and arch of the aorta does not press with such force upon the valves, but chiefly the veins, namely, all those below the heart, being placed in the most favorable position for spontaneously returning their contents, remove an immense obstacle to the egress of blood from the left ventricle. Hence it follows, that less resistance being opposed to the heart in the horizontal position, and the same power exerted, a greater quantity of blood is propelled at a time, and consequently the number of pulsations necessary to transmit the same quantity in a given time in the erect posture, diminished. The frequency of pulsation, then, is in a direct ratio to the obstacles presented to the heart's actions, whether those be mechanical or arising from debility of the heart itself." Mr. Blackley's remarks on Dr. Graves' views, that muscular exertion cannot be considered the cause of greater frequency of the pulse when the body is in the erect posture, as also of its retardation when in the horizontal and inverted position, are extremely interesting, and by many may be considered conclusive: "In the inverted position there certainly is a greater facility for the return of the blood contained in the veins below the diaphragm to the heart, yet a new obstacle is offered to the action of the left ventricle in the relative position of the arteries. The blood in the aorta, iliac and femoral arteries, etc., must in this position be forced upwards, instead of gravitating to a certain extent downwards, as they do in the erect posture, and the blood in the veins of the head and neck will require a greater *vis a tergo* to be forced upwards to the heart. Hence, I think we might readily deduce a rule to ascertain the relative force of opposition in the veins and arteries to the action of the heart in the various positions of the body. Thus, if in the erect posture, the most favorable for the transmission of blood in the arteries and most unfavorable for the veins, the heart contracts eighty times a minute; and in the horizontal or inverted position, the most favorable for the return of the venous blood and unfavorable for the arterial, it beat only sixty times, I conclude that the resistance opposed by the veins is one-fourth greater than that offered by the arteries. The easiest position then, in which the heart's action can be carried on, is that in which the arte-

ries and veins are as little antagonized as possible, viz., the horizontal." It would follow, then, from these views, that when the valves of the heart are contracted by vegetations, or fibrinous, atheromatous or calcareous deposits, the openings are imperfectly covered and a reflux follows. The heart is therefore obliged to reiterate its beats to compensate, by its quickness, for that small quantity of blood it was incapable of furnishing at one contraction through the aorta. As a set-off, however, to this presumption, Dr. Graves records six cases of hypertrophy, with dilatation of the heart, where no such differences of pulse in the erect, sitting, and horizontal postures were perceptible, although all the patients at the time of making the experiment were in a debilitated state, which is that in which the changes induced by change of position would be most expected. On this subject he thus speaks: "In these cases the hypertrophy and dilatation were very great, and in five of them certainly (examined after death), and in the sixth probably, the left ventricle was involved in the disease; and I am inclined to think this permanency of the pulse, in all positions of the body, will only be found to exist in such cases, and not in those where the hypertrophy and dilatation are less considerable, and consequently the diagnosis more obscure. On the other side of the argument, that the influence of posture on the pulse is not, *per se*, to be taken as evidence of valvular disease, I may also quote the experiments of Drs. Knox and Guy. The following table has been framed by them, of the frequency of the heart's action in different postures:

	Standing.	Sitting.	Lying.	Differences.
Males.....	81	71	66	10.5.15
Females.....	91	84	80	7.4.11

It would thus appear that in the female, posture exercises less influence than in the male. Dr. Guy seems to think that the mechanical contrivance employed by Dr. Graves had reference only to the exertion of muscular force in the production of the change of posture, and not to that required for the continued effort to maintain the attitude. We do not think that, on the whole, the evidence is in favor of relying on this variation of pulse in different positions, as an aid to the diagnosis. Let it be taken *quantum valeat*, but not as such grave evidence as would subject an applicant to refusal, or to even being placed in the second-class risks.

CHINESE TREATMENT OF HYDROPHOBIA.

The *Medical Times* recently published an account by Dr. Dudgeon of the treatment by the "Celestials" of this fatal disease. His account, however, does not agree with the statements made by some returned missionaries, who have alleged that the Chinese doctors had some specific treatment for hydrophobia which never failed to cure. The following account is curious and interesting:

Dr. Dudgeon says, "The treatment followed by the Chinese is to catch the animal, take some of its hairs, mix it with lime, apply it to the affected part and in three days it is well. Our saying, 'a hair of the animal that bit you,' may have had its origin from this treatment. They also take the precaution in this, and in most other affections, to ligature the part tightly above the wound. They are ignorant of the venous and absorbent systems; their practice is drawn from their observation that the inflammation travels upwards towards the trunk. Trousseau, in his '*Clinique Medicale*,' gives a Chinese prescription regarded as infallible, consisting of musk and cinnabar. The surgical treatment consists in having the wound immediately and freely scratched till it bleeds plentifully, and likewise sucked and washed. An empty walnut-shell is to be filled with human fæces, placed on the wound and the moxa applied. This is to be repeated one hundred times, if necessary, until the walnut-shell turns black and the contents are dry. A compound of various herbs mixed with saliva is then applied, and this is to be repeated on the second, fourth and fifth days. A mixture of cantharides, yellow earth, realgar and musk is administered internally, thrice daily, until micturition becomes painful. This latter symptom is to be relieved by administering a mixture of yellow earth, licorice, amber and indigo. On the top of the head a red hair will be found, which is to be extracted. Another method consists in using the curd of the black pea (peas and beans are considered antidotes to all poisons) made into a ball with hemp-oil, and rolled frequently over the wound, until a red hair is produced in, and again disappears from, the bolus. As a last resource, the powder of the skull, teeth and toes of a tiger are administered. Dry cupping over the wound is another plan advocated. This operation in China

consists of heating a cup by boiling wine in it, and pressing it over the wound. Another remedy is to take the body *only* of a Spanish fly, which is supposed to expel the poison through the urinary organs. Various prescriptions recommend the cantharides boiled in rice, the flies to be withdrawn and the rice eaten, on the supposition that strings or clots of blood will appear in the urine.

"Two things are particularly observable in the above Chinese practice, viz., the necessity for the immediate destruction of the poison, chiefly by the moxa or some practice involving the same principle; and the reliance placed on doses of cantharides. All agree in stating that a man bitten by a mad dog has three chances of dying to one of living, and nearly all lay great stress upon perfect quiet being maintained during the progress of the case."

MEDICAL EDUCATION IN GERMANY.

If medical education in all the schools of Germany be as multitudinously formidable as it seems to be in the University of Tübingen, we should be inclined to fear—that, unless the curriculum extends over fifteen or twenty years, the candidates for the final doctorate must come out with but slight proficiency, or that those who try to struggle through the entire catalogue of branches, must yield a large crop of lunacy or blindness. In the Berlin "*Norddeutsche Allgemeine Zeitung*," of 31st July, we find the announcement of the several Faculties of the above named University, for the winter courses of 1878-79. That for the Faculty of Medicine and Natural Philosophy, shows an array of twenty-four professors, who are to teach sixty, or more, branches, some knowledge of which (we know not how much) is, we presume, required to have been mastered by all aspirants to legal medical status. Now, of the two extremes, of teaching too many, or to few, branches of medical education, we have a most decided leaning to the latter; for we hold that it is far better to know half a dozen, or even three or four, essential subjects *well*, than to have a smattering of a score or two of heterogeneous, or merely ornamental characters; and we defy any medical school in, or out of, Christendom, to teach, with practical effectuality, such an aggregation as the school of Tübingen affects to handle.

If we are correctly informed, some other European schools eclipse that of Tübingen in the number of their professors, and of the subjects said to be taught. An old Calais proverb, spoken in English, says "send a goose to Dover, it will come a goose over." May we not say send goslings to Tübingen, or any other polymathic feathering shop, and they will come back quite *plucked*.

If our Canadian students would make good use of the advantages presented by our own schools and hospitals, and master well, even a moiety of the subjects there presented, they need not dread competition with those of any other land. He who learns a little thoroughly, will learn more easily, and will know more, than he who attempts to learn too many things.

TRANSLATION.

[From the "*Revista Medico Quirurgica*.]

Poisoning by Sulph. Atropica, Treated by Alcohol.

In a woman operated on for cataract, prolapse of the iris occurred in about 36 hours after the operation, which was attributed to a strong sneezing. Reduction was attempted by means of exposure to a rapid intense light, aided by cold baths and the instillation of atropia (5 centigrams in 20 grams of distilled water.) At the end of eight days use of this instillation, the patient rapidly lost color—the physiognomy becoming much changed, and shewing an expression of terror—shiverings, pharyngeal stricture, salivation, delirium, extremely dilated pupils, even on the side on which the instillation was not made, took place.

The author (Tamberlini) decided on the alcoholic treatment, and administered to the patient 250 grams of alcohol. Presently after this, the temperature rose from 36.1 to 37.6—6 (equal 99° to 99°.7 Fahr.) and all the alarming symptoms disappeared.

COD LIVER OIL SUPERSEDED IN LUNG AFFECTIONS.—The new remedy, *Firwein*, is bidding fair to effectually supersede Cod Liver Oil in the treatment of Diseases of the Lungs, and is expectorant, tonic and diaphoretic. It may be given in all cases where Cod Liver Oil would be suggested, or it may be associated with it, and forms

an agreeable and convenient vehicle for the administration of the oil, and is believed to largely promote its efficiency. We have had satisfactory results from its use in bronchitic cases, especially in the weak and aged, although in the latter class of cases, and asthmatic cases, we find the most satisfactory results from combination with the Sulphium Gimferum, or *Rosin Weed*. These remedies are sold in the form of Fluid Extracts and are pleasant and convenient for administration. A trial will convince the sceptical.

DR. O'REILLY has returned from his visit of inspection of the large Hospitals of the United States, with much valuable insight into their system of training of nurses, and of other matters of Hospital management, which, under his able superintendence, will, we doubt not, soon bear fruit in our model Hospital of Ontario.

LACTOPETINE.—Lactopetine is a most important preparation, lately introduced to the notice of the profession. It contains the active agents of digestion, and has been endorsed by the leading practitioners in the United States and Great Britain as a valuable remedy in those diseases of the stomach in which its use is indicated.

MEDICINES FOR THE SOUL.—This is about the best view of homœopathy which we have yet seen expressed by any of its votaries. It is taken from Skinner's Diseases of Women :

"In allopathy the soul is nowhere ; in homœopathy the state of the soul and mind is a *sine qua non*. Allopathy has no means of affecting the soul or mind, except those of a moral kind ; whereas homœopathic medicines act upon the spirit or soul of many, and through it and by means of it, and with a certainty which is as remarkable as it is true. By way of illustrating the power of homœopathic medicines over the mind and its affections I shall give the following example. A favorite cat of my own had kittens, all were drowned but two ; then one was given away, and ultimately the remaining one was given to a friend. The mother of the kittens became inconsolable, and went all over the house mourning her loss in unmistakable tones of grief for four days and nights, making night hideous with her cries. One globule of Ignatia, cured her in half an hour, as she never cried again."

That cat had a great deal of imagination, almost as much as some men.—*British Medical Journal*, July 28th.

CAUSTIC APPLICATION TO THE CERVIX UTERI IN THE VOMITING OF PREGNANCY.—Dr. J. Marion Sims, considering the suggestions it contains of great importance, contributes to the London *Lancet* a paper written by Dr. M. O. Jones, of Chicago, on the experience of the latter with the application of caustic to the cervix uteri in the vomiting of pregnancy. He believes that this vomiting is a reflex phenomenon, which fact may account for the unsatisfactory treatment of it by the stomach. Within six years he has treated successfully five cases, his plan being to excite by means of caustic applications an irritation of superficial inflammation of the os and cervix uteri, the concentrating the reflex nervous phenomena at the point of irritation and thereby relieving the stomach.

EXTIRPATION OF UTERINE FIBROID, UTERUS, OVARIES AND APPENDAGES.—We have received a report from Drs. Stewart and Hurlburt, of Brucefield, Ont., of a very interesting case of Extirpation of a large Uterine Fibroid, together with the Uterus, Ovaries and appendages. Death on the fourth day from septic peritonitis. Owing to an accumulation of articles left over from last number, we have not been able to publish this very instructive case in the September number ; we shall give it place in the October issue.

AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES.—The next meeting of this Association will take place at Boston, Mass., Sept. 10th, 1878, in Union Hall. Many important papers are expected to be read.

WE would call attention to a notice in our advertising columns, of a young physician seeking a position as partner or assistant with a long established practitioner.

WE beg to acknowledge receipt from Dr. E. E. Kitchen, of St. George, Ont., of the issue for 31st July of *Norddeutsche Allgemeine Zeitung*.

HOSPITAL APPOINTMENT.—Dr. Temple, late one of the acting Hospital Attendants, has been added to the staff of Consulting Physicians.

ERRATUM.—I notice in the July number of the CANADA LANCET a typographical error in regard to the case of poisoning by carbolic acid. The proportion of acid to water should have read oz. $1\frac{1}{2}$ to 2, instead of oz. ijs. to xii. Please correct.—J. H. R.

Books and Pamphlets.

INSANITY IN ANCIENT AND MODERN LIFE, WITH CHAPTERS ON ITS PREVENTION. By Daniel H. Tuke, M.D., F.R.C.P. Toronto: Willing & Williamson.

To the reader who is versed in the history of modern psychiatry, the mere appearance of the patronyme Tuke can hardly fail to stand as an ample guarantee of the practical soundness of any work on Insanity, coming from the pen of any one bearing that venerated name. That the writer of the above named little treatise is a worthy descendant of the founder of the world-famed "Friends' Retreat" at York, England, every intelligent reader, who has any familiarity with the literature of insanity, will cheerfully admit. For our own part, we feel bound to say, that we have but rarely fallen upon a book which embodies in so few pages (226 octavo) so valuable an amount of condensed practical, and highly interesting matter.

Dr. Tuke's discussion of that most important, and certainly not least beclouded question,—*the causes of insanity*—is handled with discretion, and consequently is free from much of that bold assumption which too often characterizes prepossessioned or incautious writers. He has very properly considered this part of the work under two distinct heads, the first of which he designates "The prevalence of the causes of Insanity among the nations of antiquity," and the second, "Insanity in relation to modern life."

The first chapter of the former is bestowed upon that *terra incognita* of humanity which has been honored with the respectable title of "Prehistoric Times." How far this period should be carried back in our planet's revolutions, must, so long as "the missing link" remains unfound, continue to be a problem no less perplexing in the inquisition than profitless in the solution. To write or to read the history of the historiless, is an enterprise demanding too severe a tension of the imaginative faculty, to be congenial to the lovers of plain matter-of-fact. We cannot therefore but express our surprise, that our amiable Quaker-enlightener has devoted even the limited space of his first twenty pages, to an exposition of the probable prehistoric causes of insanity. It is however rather comforting, to all who sympathize largely with the

afflictions of remote ancestry, to have from Dr. Tuke the following information as to the unperturbed mentality of our cavernous progenitors.

"To religious perplexities, commercial speculation, and political excitement, the man of the Drift period was certainly a stranger." We heartily concur in this belief; yet we are by no means prepared to think that the consociates of the cave hyæna, the wolf, and the grizzly bear, were not exposed to *perplexities* quite as trying on the great nerve centres, as have been in our later days the most angrily disputed problems of theology, the most disastrous commercial crises, or the most sanguinary political contests. At all events we must, for our own part, say, that we much prefer living in the present age of steamships, railways, ocean telegraphs, and rifled cannon, even with their unavoidable adjuncts of collisions, stock-knaveries, and territorial robberies. If Dr. Tuke could but assure us that none of the old Drift women were ever burned as witches, we should have a clearer conception of the comparative prevalence of lunacy in the days of stone hatchets and chisels, and our appreciation of the moral status of the peoples would certainly be much enhanced; but for the present, our faith in this regard is somewhat shaky.

After disposing of the cave factors of lunacy, Dr. Tuke enters upon enquiries of later date, though hardly of more promising elucidation. The annals of the Egyptians and the Jews afford but very meagre material for the guidance of a writer on morbid mentality; but as in modern times, especially in England, the close relation between drunkenness and insanity has become an admitted, if not an established fact, and as the Bible tells us that Noah was a pretty deep indulger, it is no very disallowable inference that, among both the *ante* and the *post* diluvians, madness must have been frequently encountered; but although Noah built a very large asylum for the preservation of numerous (both clean and unclean) animals, we have not the smallest scrap of information as to the provision made by either his ancestors or his posterity for lunatics. If drunkenness was, as it must have been, one of the heinous sins which necessitated the destruction of all but eight of our race, it would still appear that Noah had very soon broken his pledge.

Dr. Tuke treats us to a passage from a very old

Egyptian papyrus, which appears to him to settle beyond controversy the existence of teetotal societies, long perhaps before the days of the Pharaohs; and if it be true that in those times "even the ladies were carried home drunk from banquets by their attendants," one can scarcely doubt the desirability of such preventive organizations.

Dr. Tuke deals rather tenderly with the Greek women in relation to their vinous indulgences, for though he is satisfied that "they were not by any means teetotallers, they did not imbibe strong wine to the same extent as the women of England." "Indeed the Milesian (Irish of course) ladies are said to have drunk only water." This from a plain, truth-loving *friend*, is surely a harsh impeachment; but just note the cruelty and ungallantry of the following clinching sentence:

"The number of wine flasks left daily in the waiting-rooms of English railway stations by the ladies who frequent them is something extraordinary, and forms one among other proofs of an amount of imbibition which would have shocked respectable women in Greece at any period." Shame, shame! Dr. Tuke, you are a most unlovable Englishman. Could you not have supposed that the many "wine flasks daily left" were not empty and that they were intended for country friends, and that in the hurry of embarkation they had been forgotten and thus left behind; or might it not be that they belonged to continental travellers? We do heartily hope that, in the next edition of his work, Dr. Tuke will make to his fair countrywomen the *amende honorable*, and clear their long skirts of that unseemly wine stain.

We wish that our available space permitted us to extend our notice of the book, for it abounds in entertaining and very instructive matter, of which the excerpts here given are by no means fair examples. If all its readers derive from the perusal the same gratification which it has afforded to us, they will have no reason to regret having added it to their collection.

We must not, however, close this notice without expressing our disappointment, in not having met in Dr. Tuke's enumeration of causes, with any pointed allusion to the fearfully destructive effects of one vice, which beyond all doubt, both in this country and in Europe, stands more intimately associated with insanity than any one, or even half a score, of other moral or physical factors of men-

tal dethronement. Our professional readers hardly require that we should say the evil to which we here allude is masturbation. The writer of this article has had from the most reliable sources, assurances of the prevalence of this "enshrouted moral pestilence," to quite as large an extent in Great Britain as it is admitted to have attained in America; and yet, strange to say, not only almost all the latest English authors of treatises on insanity, but more culpable still, the writers of asylum reports seem to ignore the subject, and thus to leave unexposed to popular recognition, an evil which contributes more largely, if not to the *production* of insanity, certainly to its *incurability*, than alcohol, religion, politics, business misfortunes, and disappointed affections, all combined.

Just observe how delicately Dr. Tuke *hints* at this body and soul destroyer:—"Alarm should be felt when the young seek solitude and society is carefully shunned." Yes, verily, should alarm then be felt,—nay, but indeed, *then* is alarm too late. To take alarm then is to lock the door when the steed has been stolen. When a young man or a precocious girl becomes gloomy, fitfully sullen, enervate, over-studious (as it is called), and evinces indisposition to participation in the natural and invigorating pastimes of buoyant youth; just as sure as the experienced gardener infers the lurking canker-worm at the root of the untimely-wilting plant, may the physician conclude that he has to contend with a pestilent infection, which will bid defiance to all his *armamentarium medicinale*. Why should this calamity be eternalized? Why do not the guardians of the public weal speak out?

CONGENITAL OCCLUSION AND DILATATION OF LYMPH CHANNELS. By Samuel Busey, M.D., Professor of Theory and Practice of Medicine, University of Georgetown. New York: W. Wood & Co. Toronto: Willing & Williamson.

The writer of this most interesting work has not attempted any systematic classification in the large collection of cases contained, yet without doubt it is the most complete record in the English language; a large number of the reports are well illustrated, no less than fifty-six in the well printed volume. Among the subjects treated will be found—Elephantiasis congenita, Cystica E. Varicosa, Hypertrophy of integument of arm, hand and finger, of leg, foot and toes, Congenital lymphatic varix, Lepra Arabica; etc. According to the writ-

ings of many pathologists, the lymphatic system is the seat of almost all of those diseases usually referred to that state of the system connected with dyscrasia, and performs a very important part in the production of disease. In every case it is certain that the entire state of the lymphatic system is very considerably changed in scrofulous disease; the glands are broken up; the diameter of their vessels becomes increased, and the external lymphatic glands more especially swell, often pass into inflammation, suppuration and degeneration. The volume before us is principally taken up with congenital cases, the acquired only incidentally alluded to. We recommend the work strongly both to practitioners and students.

REMARKS ON OVARIOTOMY, with an Appendix.
By J. W. Rosebrugh, M.D., Hamilton, Ont.

This monograph on the Literature and Operative procedure in cases of Ovarian cyst will be found a good resumé of all that has been written in late years upon the subject.

BRAIN: A JOURNAL OF NEUROLOGY. Edited by Drs. Bucknell, J. Crichton, Browne, Ferrier and J. Hughlings Jackson. Part 1, to be published quarterly. Toronto: Willing & Williamson.

The names of the above editors will at once secure readers for this new venture in psychological journalism. Each article is prefixed with the name of the writer. In the preface to the first number the editor remarks: "The function and diseases of the nervous system will be discussed both in their physiological and psychological aspects, but mental phenomena will be treated only in correlation with their anatomical substrata, and mental disease will be investigated as far as possible by the methods applicable to nervous diseases in general." This first part contains notes on the symptom, significance of different states of the pupil by Jonathan Hutchinson, F.R.C.S.; Motor Feelings and the muscular sense by George Henry Lewes.

On the rôle of the Dura Mater and its nerves in Cerebral Traumatism, by H. Durel Aide de L'anatomic de la Faculté de Medicine, Paris.

On some symptoms of Organic Brain Disease, by W. R. Gowers, M.D.

On Brain Forcing by T. Clefford Allbut, M.D. On the comparative structure of the Cortex Cerebri by Bevan Lewis, F.R.M.S. On skull mapping, by Crochley Clapham, L.R.C.P., London, besides notice of books and interesting clinical cases.

NITRITE OF AMYL IN SEA-SICKNESS.

To the Editor of the London *Lancet*.

SIR,—I was extremely pleased to read in your journal of July 27th, a paper by Dr. Lesson, giving his experience in the use of my remedy for seasickness.

Since I published my own results in August, 1875, I have received many letters of thanks from grateful patients, who have found relief from the tortures of sea-sickness in the use of nitrite of amyl. But I have had no medical opinion on its value until the present time, with the exception of a note Dr. J. Crichton-Browne, stating that he had found it efficacious in some few cases which he met with when crossing to Sweden last year.

Though Dr. Lesson's success with the drug was not so marked as my own, his results, are, I think, sufficiently encouraging, and I hope that the fact of his recalling attention to the use of nitrite of amyl in the treatment of sea-sickness will lead to a more extensive trial of its value by those having opportunities of testing it.

There is some difficulty of preserving nitrite of amyl when carried in a bottle, as, especially in hot weather, the stopper is liable to be blown out, and an escape established. I now always recommend patients to carry the drug in capsules, such as are manufactured by Allen and Hanbury, Plough-court, which may be broken and their contents dropped upon a handkerchief as required.

With regard to quantity, I think that almost any amount may be inhaled by a healthy person; but *under no circumstances* would I administer the drug to a person suffering from any arterial disease. A great point in the administration is to exclude all atmospheric air other than that coming through the saturated portion of the handkerchief.

Yours faithfully,

CROCHLEY CLAPHAM.

Surbiton, July 29th, 1878.

SALICYLATE OF SODA IN PERTUSSIS.

To the Editor of the London *Lancet*.

SIR,—During a recent epidemic of pertussis I thought possibly the salicylate of soda might be of use, and the beneficial effects I had from its use were very marked. I gave it in doses of from three grains to five grains in water. After the first two or three doses the expectoration became most copious, and was much more easily got rid of, and in four or five days in most cases the spasmodic cough either ceased or became so slight as not to cause much inconvenience. The effect was not so marked as that of quinine, but it seemed to me much more certain. Hoping some of your readers will give it a more extended trial,

I am Sir, yours obediently,

W. M. JONES.

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

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Original Communications.

ANNUAL ADDRESS.

Delivered before the Canada Medical Association, Hamilton, Ont., September 1878.

BY JOSEPH WORKMAN, M.D., PRESIDENT.

GENTLEMEN :—Not one of you who had the pleasure of listening to the eloquent, elaborate, and as I might almost say, exhaustive address of my richly gifted predecessor, delivered at our last annual meeting at Montreal, can think that I act imprudently in advertising you, that on the present occasion I have neither the intention nor the desire, and certainly not the hope, of offering to your consideration, anything that might compete with that lucid and very instructive production, of which I can for myself, and I think also for my co-auditors, say, in the words of Horace, "*Hæc placuit semel, hæc decies repetita placebit.*"

Had I, when listening to Dr. Hingston's address, entertained the apprehension, that the Nominating Committee would submit my name, in succession to your presidentship, I very much doubt if I would not have found it unavoidable, suddenly to fall into a state of serious ill health, altogether incompatible with the adequate discharge of the duties of the office—not assuredly that I undervalue the honour of the position, nor that I am not profoundly sensible of the kind feeling which actuated my associates in awarding me the honourable distinction. Could I, however, believe that I might ascribe their selection to some more consoling consideration, than modest respect to advanced age, I might not now assume this chair, with that timidity which a strong conviction of my defective comparative qualifications renders inevitable. Let me therefore trust that you will interpret kindly the few observations which I now venture to submit.

Before touching on any matter of practical con-

cern, I cannot resist the sorrowful impulse of offering a tribute of well-merited honour to one whose name must long be held in warm remembrance, not only by every member of this association, but by the entire community. Since our last meeting it has pleased the Supreme Ruler of Life, to remove from this sphere of existence, one of our most esteemed and most richly gifted brethren. Dr. Edward Mulberry Hodder, who so ably and acceptably filled your Presidential chair two years ago, has been taken from us, less ripe in years than in professional eminence. To those among you who had the privilege of acquaintance with his practical medical and surgical competency, no word of eulogy from me is called for. His death has left a blank in our Ontario ranks, which cannot soon be adequately filled; and I am well aware that throughout the entire range of his large clientele, a feeling of despondent orphanage has prevailed, which time seems rather to intensify, than to have mitigated. It did not, for obvious reasons, fall to my lot to have much professional intercourse with Dr. Hodder; but of his amiable and manly social qualities, I can speak most unhesitatingly; and this I can say: that a warmer friend, or a more generous and frank opponent, (I say not *enemy*, for he was above enmity,) I have never known, and I have in my time stood towards him in both positions. His friendship was no slipshod, crafty, poison-hiding utilization of his fellow-men, but the irrepressible impulse of an honest and honourable heart; and as to his antagonism, it was as open and earnest as was his jocund rosy face. All his blows were struck straight-out from the shoulder, and *after* the conflict he was as ready to forget offence, as *in* it he was prompt to resent. To say that he was faultless, would be but to libel humanity, for lifeless are the faultless; but let us as in the words of the sweet poet of my native land, guard thus his memory:

"When cold in the earth lies the friend thou hast loved,
Be his faults and his follies forgot by thee then;
Or if from their slumbers the veil be removed;
Weep o'er them in silence, and close it again."

It is perhaps matter of slight regret that I am unable to report any late legislative action in medical affairs within this province; for considering the amount of tinkering, pedantic quibbling, and meaningless intermeddling, which every measure relating to medicine, however skilfully pre-

pared, is doomed to undergo, in a popularity courting Assembly, no small proportion of whose members have never sought to acquire that knowledge which might qualify them for the duty of legislating on such matters, I think we should never, unless under very cogent necessity, venture to ask for any legislation whatever. We may go in with decent apparel, but our chance of coming out with untattered garments is certainly very slender.

Is there any *self-respecting*, or *professional-respecting* member of our body, who regards the hybrid synthesis presented in our present authoritative Ontario medical corporation, without feeling the blush of shame mantling his cheek? Surely we cannot be far from the millenium of medicine, or from its deluge, when we see the lamb and the leopard lying down together, and the calf and the lion feeding amicably at the same crib, the king of beasts having passed through the dentist's hands, and now eating straw like the ox, and doubtless, also, in bovine docility, chewing the cud! Is this evolutionary progression, or is it atavistic retrogression? Will it eventuate in the survival of the fittest, or in the evolvement of a new species? Let us hope for the best, for hardly can worse be in store. If we have not touched bottom, the pit must be awfully deep. It was perhaps needful for our future virtue, that we should be taught how low we could be degraded. The bitterest pang of the dying eagle was that provoked by the sight of the feather from his own wing on the arrow which pierced his bosom. So has it been with us; but be the shame on its authors, and let them bury it as best they can. *Similes similibus inhumentur.*

The last report of our Provincial Registrar gives evidence of fair progress in the statistical returns which it exhibits, and it is much to be desired that so valuable a publication may undergo continuous improvement and enlargement. We are still without the benefit of a central Board of Health and its tributary organizations, but as a vigorous committee of the Legislative Assembly, during the last session, devoted much attention to the subject of sanitation, and availed itself of the opinions of numerous experienced physicians, we may reasonably trust that in the next session our expiring Parliament will place on the Statute Book an Act which will prove that they duly value the great national blessing of public health.

There is, however, one most important provision, which, unless the subject be strenuously urged upon the consideration of Government, will be overlooked, if not, indeed, dignifiedly ignored. I allude to the direction, by the central Board, of all matters relating to the health of our large public institutions, embracing, as such a provision should do, the selection of proper sites, the erection of substantial and truly economic buildings, securing of salubrious air and reliable abundant ventilation, adequate sewerage without detriment to the health of neighbouring localities, a sufficient and cheap supply of pure and serviceable water, advantageous position for obtainment and delivery of all sorts of supplies, and for prompt recruitment of the service staff. Every one of these requirements should be insisted on.

It is my conviction, not founded on vague conjecture, (for I know whereof I speak,) that not merely would the authoritative guidance of an efficient central board of health, invested with the powers above instanced, have saved to the public, in the last thirty years, scores—aye, hundreds—of thousands of dollars, but, (which is even more important,) it would have prevented the erecting of some of our most valuable institutions in unhealthy, unseemly, or very disadvantageous localities. Those of your number, who are old enough to remember that plover and snipe preserve, in the west end of Toronto, which was chosen as the site of the Provincial Lunatic Asylum, will assuredly not say that it was an eligible location for so large an establishment. It could never have been approved of by any body of men, large or small, who understood practical hygiene. Some of the stone foundations had, owing to the quagmire pits lighted upon, to be sunk to a depth of 12 or 14 feet. In order to bring the surrounding ground to any sort of a decent face, recourse was had to the most unwise and insanatory expedient, of scooping out a basement 4 to 5 feet deep, just as though the surface was not already too low and damp. The water had to be brought almost a mile from the lake, or rather the dirty outlet of the bay; and as if the fluid was not already sufficiently impure, the building committee, perhaps under Board of Ordnance constraint, carried the main sewer of the establishment, in company with the water pipe, to the pumping house, there discharging the putrid stream within 40 or 50 yards of the open mouth of the

pipe. Now, bearing in mind that at the spot no current runs eastward or westward, to carry off the discharged sewage, and that in summer calms, or under winter ice shelter, the flow of the intruding sewage must tend towards the sucking mouth of the pipe, can any one be surprised that the water forced up to the asylum was often very impure? Particles of fæcal matter were said to be sometimes detectable in it. This state of things, despite of all complaints and remonstrances, continued up to the time when the Grand Trunk Railway cutting through the garrison common, broke the connexion, and sent the sewage down one side to the bay, debouching very odorously over the beach, at a point 150 yards, or more, from its previous outlet. Could any so monstrous and death-dealing an outrage ever have been perpetrated by a competent Board of Health; or had any such occurred before its organization, would it have been tolerated for a single month afterwards? But it was, under the existing regime, tolerated for six years, and all who remember the consequent incubations of endemic cholera, erysipelas, dysenteries, intractable diarrhœas, and other obstinate affections, with which the medical staff had to contend, will admit that though ignorance of sanitary science, on the part of men in authority, may be a very comfortable garment to them, it is very far from blissful to those who are doomed to bear the consequences of their blunders. The preceding details are but a meagre sample of the bundle of evils bequeathed to the Toronto Asylum by its founders.

The Toronto General Hospital, though subsequently, after much trouble and expenditure, greatly improved, was another most ignorantly located and constructed edifice. For the sake of a little saving in cost of a suitable site, it was placed in a distant corner of the city, almost as inconvenient as possible for prompt and easy access by the sick or wounded destined to seek its benefits. The drainage was as defective as it could possibly be contrived. As to the ventilation, it was as hugely negative as though the architect had taken honours in a college, where the science of "how not to do things" was regarded as the noblest branch of human knowledge. Some who may now hear me, may not have forgotten the time when our best and most thoughtful surgeons approached important operations in that forcing-

house of septicæmia with fear and trembling. I pointed out to some of the building committee, at the commencement of the work, a few of the blunders they were about to commit; but I might as well have whistled jigs to a mile stone; for that respectable indicator of progress was but little less endowed with hygienic knowledge, than they showed themselves to be. They had been captivated by the æsthetic lights and shadings of the draftsman, and they felt confident that so much outside beauty must be linked with corresponding internal excellence. So much for devolving on men unqualified for the duty, the direction of important public erections, whether as regards selection of appropriate sites, or the adoption of effective structural arrangements.

A third large, and eventually very costly public institution at London, has been trumpeted into celebrity within the last decade. This was, in its early months, lauded by the admirers and flatterers of its projectors, and of course, by the projectors themselves, as the Model Lunatic Asylum, not only of our Dominion, but of this Continent. I heard a member of the economic Sanfield Macdonald government, tell an assemblage of intelligent alienists that he and his confrères had then established the fact, that lodging and maintenance could be provided for lunatics at 50 per cent. less cost than had been required at Toronto. The Hon. Premier had himself told me, before that date, that he was going "to run the London asylum" at 25 per cent. *per caput* less than the Toronto patients cost; and he asked me what I had to say to that. I replied that, for the present, I could say nothing, but if he would wait for seven years, we might be better able to discuss the question. More than seven years have now passed, but my sanguine competitor is now beyond the realm of lunacy, and I am sure should he and I meet hereafter, we shall not quarrel over the question. Examination of the public accounts by his colleague, will now show him how very far short of his exultations, have fallen the actual savings of their model asylum.

As relates to the structural qualifications of this cheap-John edifice, I cannot do better than here quote the following depiction of them, given by Dr. Bucke, the present talented and honest speaking medical superintendent, at the last annual meeting of American superintendents, held at Washington. Dr. Bucke spoke as follows:—

"The hospital that I superintend, in London, was built under the economical government of the Hon. John Sanfield Macdonald. This government had to build an hospital for a certain number of patients, and Mr. Macdonald wanted to know what it could be done for. The architect made plans, and estimated that the Institution would cost over a thousand dollars per patient, and said it could not be done for less. Mr. Macdonald said that it *must* be done for half that amount, and directed the architect to prepare plans of an asylum to be built for 500 dollars per patient. The hospital was completed upon those plans and specifications, and that hospital I manage now. It was built as well as it could be for the money, but it has required so many renewals and repairs, that I believe it is one of the dearest hospitals in North America to-day, and still it is not, and it never will be, a first-class hospital. It will never be a good building; no amount of money will ever make it one; it will always be a poor, dear asylum. You will, therefore, see that my experience, and consequently my opinion, are opposed to low priced asylums."

I am aware I was the first to recommend London as the most appropriate location for a new insane asylum. Its western centrality, facility of access by several railways, the contiguity of a considerable river, a general healthy atmosphere, and a land surface exempt from malaria, were, in my estimation, sufficient indications of the fitness of the locality. By request of a member of the Ontario Government, I accompanied him on an examination of several places around the city of London, for the purpose of selecting a good location for the contemplated new asylum. I saw only one that appeared to me to be in every respect suitable. It was a farm of 160 acres, on the west bank of the Thames, about 3 miles above London. It offered a beautiful and most advantageous site for the building, with never failing river-water supply at a short distance, and copious springs for pure drinking and culinary water, and I urged the early purchase, even at a nominal high figure, saying that a few thousand dollars extra, should be held as of no consideration in the securing of a suitable and beautiful site, for an institution which must last for ages.

My advice was not acceptable; so this minister and the premier went up one day, and pitched

upon a location which I never saw till after the buildings were up; nor was I taken, as I believe, within sight of it; and yet the honourable gentlemen referred to, stated afterwards in parliament, that I had approved of this location, and had said that "one could not throw up a rocket there but it would come down on a good site for an asylum." Had I ever so spoken, the rocket should have lighted on my own head, for then it would have hit upon a real lunatic site. What the two honourable gentlemen saw in, or on, this place, to commend it to them, as a fitting location for a large insane hospital, I pretend not to divine. It surely could not be that it presented a good stand for axe-grinding. I know what was Dr. Landor's opinion of it, and I know the long and hard work bestowed on it by him, to redeem much of the land from swamp infiltration, so as to make it firm enough for horses and cattle to pass over it, without sinking too deep. The thought of water-supply and convenient sewage discharge was too childish a matter to find entrance into the brilliant heads of the twin explorers. The place was over two miles from the nearest point on the river Thames, and the house must depend for water on local springs, supplemented by interception of the land water caught by the farm tile drains. We know what was the upshot. Then came the sage afterthought of boring for an artesian spring. Month after month, if not year on year, saw this monotonous work creeping down, till even the hope-exhausted lunatics learned to call out when an additional foot was gained, "there's another five dollars gone." It was not an adequate premonition that another artesian boring had been made in the city, which finally gave water so offensive to smell, as to be unfit for any purpose save street watering, and it was not very eligible for even that. Deep and still deeper went the horrid bore, until at last, I know not how far on this side of the antipodes, up came the long longed for spouter: but such was the odor of the liquid that the superintendent had the bore plugged, at some safe distance from the bottom, and was content to receive a less copious supply, yielded by superficial strata. But for the honor of the department of public works, this water might as well have been accepted long before.

I have not learned what arrangement has been come to, with the residents along the devious

course of the sewage streamlet, which cannot find safe final dilution short of 2 or 3 miles from the asylum. It once found temporary escape into the water-tanks, and a rich crop of typhoids ensued. One, at least, of the staff walked into the city when he wanted a drink of good water.

Leaving this economic abortion in its glory, let us now, gentlemen of the Ambitious City, peep up to the crest of your admired mountain, and behold there a large new asylum, perched away high up above your chimney tops, looking down disdainfully on your beautiful bay, and snapping its fingers at the bright pure water of Lake Ontario, as much as to say, "come up here if you dare!" Verily it was a grand idea, that of planting a habitation for five or six hundred people, on an eminence to which it requires three steam pumpings to force the water supply up! The men who selected that spot were worthy of eternal fame, and ten acres of leather medals. Just see what a noble fall it affords for the sewage, and what a trifle it will cost to deprive your aristocratic citizens of the fragrant odour of that crystal streamlet! Add then the extra hire dispensed among your owners of horse flesh, for double teams to haul up coal and wood and other supplies, and then hurra for economical government, and go abroad and invite the people of other towns to come and admire the house that Jack built; but do not tell them that any of the lunatics were consulted.

Is it, gentlemen, now needful, that I should adduce any further illustrations of the dear-bought fact, that our rulers who hold the purse strings, have, in their direction of large public erections, exhibited a lamentable ignorance, or a fatal disregard of the hygienic and other essential requirements of such establishments? Is it not high time that the medical profession should come to the front, and honourably proclaim its disapproval of this sort of murderous and costly quackery? Are we never to acquire consciousness of our own real strength, but forever to cringe, cap in hand, and with shaking knees, before the men we could put into power, or turn out of it, did we earnestly and unitedly set to work? Did the medical profession of Ontario but justly appreciate its own popular influence and collective strength, and judiciously and honourably put forth that strength, when its own proper interests, or those of the public are at stake, I should like to see the

ministry or the parliament that would snub us. What then, in the name of manhood, is it that we lack? Simply and solely that noble *esprit de corps*, which should actuate every honourable brotherhood; and, gentlemen, it is primarily, and paramountly, in re-unions such as I now have the honour and pleasure of addressing, that this exalting spirit of medical solidarity must have its birth-place, its cradle, its youthful invigoration, and its fully developed manhood; and therefore should we strain every nerve to extend, strengthen, and perpetuate our organization; not however, by begging from our law makers statutory incorporation, or legalised privileges; far rather must we strive to become a law unto ourselves, and to exhibit in our walk in life, that cultivated intelligence, and national benevolence and patriotism, which cannot fail to command the respect of every well-ordered community.

Surely we are not, forever, to submit, in humble silence, to the hackneyed aspersions cast upon us by our detractors in other walks, that "doctors ever disagree," and that "medicine is" as the style it "an uncertain science;" by which they would seem to imply, a non-perfected science; and this from the lips of men whose entire course is but one continuous drama of disagreements and bitter contentions. It will be time enough for us to feel ashamed of our honest differences in opinion, or antagonism of practical judgment, when we see our neighbours of other professions or callings, in their respective spheres, exhibiting harmony of doctrine, and a corresponding harmony of demeanour. Is theology a certain science, and do its teachers never quarrel? Do judges never differ in their interpretations of the law? And what of the harmony of opinion of advocates? Do not all the world know that large fees, or even small ones, will exhume any quantity of legal certainty, on either side of any case whatever? Outside of the three ancient professions, what certainty of science, or unity of opinion do we find? Do civil engineers, architects, painters, sculptors, geologists, philologists, metaphysicians, and all the other tribes of learned bipeds, constitute just so many happy families, in which neither barking, biting, nor scratching is ever heard of? Finally behold the press! As to certainty (that is perfection) of science, that consummation must be contemporary with its petrifaction, and there always will be in this world a

sufficient amount of solvent ignorance to prevent that crisis. Certainty of science, forsooth? Did Galileo perfect the telescope? Did Kepler reveal the law of gravitation? Did Newton derive no help from Kepler's three prime laws? Did Franklin exhaust the wonders of electricity? Certainty of science! Was it not she who burned hundreds of lunatics as witches; sent Giordino Bruno to the stake for teaching that the planets revolve around the sun; forced Galileo to swear this doctrine blasphemous heresy; sneered at Harvey's discovery of the circulation of the blood; and, in our own time, declared ocean steam navigation impracticable; forbade George Stevenson's locomotive to go faster than ten miles an hour, and ridiculed his project of crossing Chat's Moss? Humble science to-day meekly bows the head in the presence of dethroned mind, and protects and shelters the lunatic as an object of pity and christian benevolence. So far from burning Brunos at the stake, we hail with raptures one of the family now fixed in the centre of gravitation—all the planets, and some comets, obeying his behests and rejoicing in his smiles, or dreading their withdrawal. Harvey's doctrine of the circulation of the blood is learned almost with our A, B, C. The railway locomotive outstrips the wind, and competes with the swallow, and the crossing of Chat's Moss has been left far in the shade by later herculean achievements.

But has science reached perfection? Can it ever climb to that summit? Who that possesses ever so trivial, or ever so great an amount of knowledge, could or would desire such a consummation? What but cessation of all action, all progress, would be this stupendous climax, and to what condition, formed as he is for mental and bodily effort, would man sink, when no more truths remain to be discovered, no more mysteries to be unearthed, no more battles of intellect to be fought, and no more wreaths of victory to be won?

Away, then, with the vapid twaddle! Doctors in medicine unquestionably *do* differ, and, thank God, they always *have* differed since medicine became a progressive science, and there is little reason to fear that we shall ever cease to differ.

But you will not, gentlemen, so grievously misunderstand me, when thus speaking of salutary rational differences, as to suppose that I do not, as well as every one of you, deplore those petty,

unseemly, angry, and utterly non-scientific squabbles and dignity-ignoring wranglings, which, in but too many instances, bring discredit on our whole body, and divest the combatants of all pretensions to educated, or even instinctive, gentlemanhood. This is surely one of the *opprobria medicinæ* which it behooves us all to struggle to remove; but in our exhibition of disapproval of the evil, let us remember that "blessed are the peacemakers."

It is much to be feared that though medical education in this country has undergone considerable improvement, or at least large extension, within the last quarter of a century, there is one essential branch of it, which might be more sedulously inculcated than it would seem to be; and indeed it has occurred to me, that a chair in every medical school might very profitably be filled by its teacher. I doubt not you all have anticipated the announcement, that I mean the science of medical decorum and general gentility. Among the many witty utterances of Voltaire, the following was not the least incisive: "There is a vacant chair in all the colleges for unknown truths."

Might not the branch of medical education for which I now plead, claim rank in the above class, and thus be rescued from the limbo of the forgotten; or might it be advantageously associated with sanitary science and mental hygiene? We must not overlook the fact, that the eight medical schools of this Dominion are now turning out a quarter of a thousand new aspirants yearly. A year ago the number of practicing physicians was 3000, or about one to every 1200 of the population. If we go on increasing in numbers, in continuous arithmetical progression, as we have certainly been doing for some time past, I fail to conjecture what will become of the young fries, unless they take to cannibalism, and thus verify the Darwinian theory of "the survival of the fittest." Should our schools receive, with cheerful acquiescence, the suggestion above made as to the occupancy of the vacant chair, we might entertain the hope that our over-crowded ranks would be thinned in strict accord with the laws of chivalrous warfare, and that our politely trained successors will exterminate one another as gentlemen should do. I may be much in error, or I may be over the threshold of dotage, but if so, I began to dote before yesterday, and my thought has been in this direction, to wit: our province is laboring under a

And now, gentlemen, fondly trusting that I have not unduly trespassed on that valuable time which should be allotted to more instructive matters, permit me to tender to you my very grateful thanks, for the kind consideration to which I am indebted for my present honourable position; and may he whom you select as my successor, feel as warm an interest in your prosperity as I do!—A warmer he cannot feel.

An exploratory puncture was made into the tumor in the middle line two inches below the umbilicus, but only a few drops of reddish serum escaped through the trocar. No localized or general fluctuation can be detected. The abdominal walls are œdematous. The tumor has a very distinct pulsation communicated to it by the abdominal aorta. The vagina is elongated; the os uteri can be reached but with great difficulty. The catamenia commenced when she was fifteen years of age. She menstruates regularly at present, and has done so since her last mis-carriage, three years ago.

Digestive system. The appetite is very poor. She is troubled with flatulence and constipation.

Urinary system. The urine is scanty and high colored and deposits urates in abundance. It is free from albumen, etc.

The *circulatory, respiratory, and nervous* systems are normal.

Locomotion is seriously interfered with on account of, (1) tumor, (2) œdema of lower extremities. She is compelled to sleep in the semi-recumbent position.

June 25th '78. During the last three months the tumor has been rapidly increasing in size, as will be seen from the measurements taken to-day,* as compared with those taken formerly.

From right ant. sup. spine to umbilicus	13½ in.
“ left do.	13 “
“ umbilicus to pubes . . .	12½ “
“ “ ensiform cartilage	8½ “
Circumference at umbilicus . . .	46½ “
“ two inches below umbilicus	48¾ “

The upper border of the dulness now reaches four and one-half inches above the umbilicus. A small quantity of free peritoneal fluid can be detected along the superior border. The uterus is now entirely beyond the reach of both finger and speculum.

Diagnosis. The diagnosis arrived at was that we had a fibroid tumor, springing from the uterus, to deal with. Our reasons for coming to this conclusion were: 1. The solid and firm character of the enlargement. 2. The uterus being drawn entirely out of reach. 3. The absence of fluctuation and of fluid. 4. The heaving pulsation communicated to the tumor by the abdominal aorta.

Prognosis. The increase in size of the tumor has been so rapid of late, and the deterioration of the general health so great, that it will be impossible for her to live over two months. She is urgent that something should be done for her, and adds that she does not fear the result, for her life is a “terribly miserable one.”

Preparations for the operation. The 19th day of July was chosen for the operation. On account of the warm weather we would liked to have put it off until later in the season, but on account of

her extreme state delay would be dangerous. Four days previous to operating we had her removed to the room she was to occupy. This room was 40 x 30, with a ceiling 15 feet in height. It was freshly plastered and thoroughly cleaned.

Operation. The patient being laid on the table, Dr. Graham of Brussels administered chloroform. At 12.30 P.M., the operation was commenced with the assistance of Drs. Dunsmore of Mitchell, Worthington, Taylor, McDonagh and Young, and several medical students. An exploratory incision of six inches in length, commencing an inch below the umbilicus and extending to within two inches of the pubes, was made through the skin and cellular tissue. The deep tissues down to the peritoneum were then divided separately on a director. After all bleeding points were secured, and when all oozing had completely ceased, the peritoneum was pinched up and divided on a director to the full extent of the incision. The smooth, pearly, and glistening aspect of the tumor was now seen. The uterus was found three inches to the right of the median line; its upper border was an inch and a-half below the level of the umbilicus. The tumor was tightly grasped by the left broad ligament, which passed in an oblique direction across it from right to left. The left ovary which was the seat of a multilocular cyst about the size of a hen's egg, was situated three inches to the left of the median line, and four inches below the level of the umbilicus. Before proceeding any further it was found necessary to divide this constricting band. This was done by passing two strong hempen ligatures around it about half an inch apart and dividing between them. Several trocars of different sizes were now introduced into the tumor in different places, but no fluid escaped. A slight incision was now cautiously made into it; this was followed by a considerable amount of hæmorrhage. All bleeding points were now secured, and the incision was extended upwards to about three and one-half inches above the umbilicus, and downwards to within one inch of the pubes. Search was then made for parietal and intestinal adhesions, but none being found, the tumor was with considerable difficulty turned out. The pelvic connections of the tumor were now found to be extensive and firm, the adhesions to the bladder being particularly so. An attempt was now made to enucleate the tumor from the thin shell of uterine tissue which

* The above measurements were taken after the patient had rested in bed nearly 24 hours. This was done in order that the œdema of the abdominal walls would have time to subside. Our first measurements were taken without using this important precaution.

surrounded it, but the hæmorrhage attending this procedure proved to be so alarming that it had to be desisted from. The pelvic adhesions were now separated, which proved to be the most tedious part of the operation. A powerful chain écraseur was now with difficulty put around the neck of the uterus, but with it we failed to cut the mass through. It, however, had the effect of controlling the circulation so that we were able to "shell" the tumor out without any hæmorrhage whatever. A strong, double, carbolized hempen ligature was now passed through the neck of the uterus and all the parts above it cut off. All bleeding points were now secured with fine antiseptic silk, the ends of the ligatures being cut short. The abdominal and pelvic cavities were carefully sponged. The external incision was now closed with deep and superficial sutures of antiseptic silk. A drainage tube of rubber, which was cut off close, was inserted between the lowest sutures. The "protective" was now laid over the wound; this was covered by loose and moistened folds of gauze, and over the latter was laid twelve layers of gauze, a piece of mackintosh intervening between the first and second layers. The whole was then firmly bound by numerous turns of antiseptic rollers. The operation, which was performed throughout antiseptically, lasted two and a-half hours.

At 3 30 P.M., half-an-hour after the completion of the operation, the pulse was 93, and full. She complained of thirst, and was given some ice to suck. At 6 P.M. the pulse had fallen to 88, and she expressed herself as feeling very comfortable.

July 20th, 6 A.M. She passed a comfortable night. Slept at intervals; is free from pain. The pulse is 90 and temperature normal.

9 A.M. Dressings changed under the spray; the discharge is considerable, but sweet.

9 P.M. Pulse 94, temperature 99. Is free from pain.

21st. 7 A.M. Pulse 96, temperature 99½. The dressings again changed and found to be stained. About half a drachm of reddish serum was removed through the drainage tube.

7 P.M. Pulse 100, temperature 100½. A drachm of reddish serum having a putrescent odor removed through the drainage tube. When the protective was removed this evening the lower part was found covered with putrid serum.

July 22nd. 6 A.M. Pulse 116, temperature

101. She complains of a pain in the region of the umbilicus. Dressings again changed and found to be saturated with badly smelling serum. The upper ¼ of the abdominal incision is about healed by first intention. Vomiting has set in; there is slight tympanitis also.

7 P.M. Pulse 120, temperature 102½ (in the rectum). The tympanitis has increased and the vomiting still persists.

12 30 P.M. Pulse 118 and weak, temperature 99½. Diarrhœa has set in.

11 P.M. Vomiting frequent and excessive. Diarrhœa uncontrollable. The dressings require to be changed every 12 hours. The pulse is 136, temperature 98. She is sinking fast.

Died on the morning of the 23rd from a low form of septic peritonitis. She lived 89½ hours after the completion of the operation.

Post mortem. The upper ¼ of the abdominal incision was entirely healed by first intention. The bowels were greatly distended and some flakes of recent lymph were found adherent to them. A considerable amount of putrid serum was found in the abdominal and pelvic cavities. The uterine stump presented a healthy appearance. The cervical canal was open.

Examination of the tumor, etc. The tumor with the uterus, ovaries, etc., weighed 25 pounds. The tumor itself weighed 23½ pounds. On cutting into it, it was solid with the exception of a small cyst capable of holding about an ounce of fluid. In the interior there was found a small quantity of calcareous matter. It sprang from the posterior surface of the body of the uterus at its junction with the neck. The shell of uterine tissue, which enveloped it, consisted of the peritoneum and a thin piece of the muscular tissue of this organ.

The portion of uterus removed, admitted a sound to the depth of 7¼ inches. The left ovary was the seat of a multilocular tumor, about the size of a hen's egg. The right ovary presented also a slight trace of cystic degeneration.

Remarks. The cause of death in this case was, no doubt, septic peritonitis. Before the abdominal cavity was closed we thought we had secured the cervical canal completely, but at the post mortem it easily admitted the entrance of the little finger from above. We have no doubt but that it was through this passage the serum became putrid. Septicæmia has heretofore been the most

common cause of death after ovariectomy, but antiseptic surgery will most certainly do away this. If enucleation could have been performed in this case, matters would have been simplified very much, but it is very doubtful whether this procedure can be resorted to in any case where the tumor is very large, and its vascular connections intimate. Spencer Wells enucleated an intra-mural fibroid* weighing 17 pounds, but the patient died four hours afterwards from the effects of hæmorrhage.

A word or two about the value of abdominal pulsation in the diagnosis of solid uterine tumors. We believe it was Lawson Tait who first publicly insisted on the value of this sign. We have a case at present under observation where there is probably a large fibro-cystic growth springing from the uterus and drawing it up to within two inches of the umbilicus, but no pulsation can be felt in the tumor.

In conclusion we have much pleasure in quoting the following words from one of the most distinguished ovariectomists † :

“Never operate without perfect antiseptic precautions in ovariectomy. I trust the time will come when every student of medicine will be compelled to study the theory and practice of antiseptic surgery; and I believe fully that the time will come, and is not very far distant, when the general voice of the profession will demand that this special operation shall not be undertaken without antiseptic precautions.”

CASE OF SCARLET FEVER FOLLOWING PARTURITION—PUERPERAL MANIA—RECOVERY.

BY J. H. RYAN, M.D., SUSSEX, N. B.

The following case is of interest owing to the unusual complication of diseases, the high fever, and the severity of the symptoms. An analysis of the urine was not made in this case owing to the difficulty in obtaining a specimen, as it was voided in bed, and for the greater part of the time involuntarily; but that a sufficient quantity escaped from the system was evident from the saturated appearance of the bed clothing.

* *Brit. Med. Journal*, July 27th 1878.

† J. Knowsley Thornton in the *Medical Times and Gazette*, for July 13th 1878.

In the morning of March 18th, 1878, I was called unexpectedly to attend K. R—, æt. 21, single, and parturient for the first time. There was nothing of unusual occurrence in her labor, vertex presentation, with occiput right anterior, the uterus contracted well, and after four hours of moderate labor, was delivered of a healthy male child. The placenta was readily expelled, the uterus firmly contracted, and the patient was left in the best of spirits. She continued to do well for a couple of days, but on the third day, the 20th, was not so well; had considerable fever, and was much excited; pulse 146 per minute, and had pain through the night in hypogastric region. Administered ergot and bromide of potassium. Two hours subsequently, was again called; pulse 144, and temperature in axilla 104.8° F. She complained of a dry hacking cough, but auscultation and percussion failed to discover anything abnormal with lungs or heart. There was no abdominal tenderness, but as lochia was scanty I ordered warm water injections per vaginam, and a full dose of castor oil to be administered.

March 21st. Slept well during the previous night; temperature high, 105°; pulse 142; cough still troublesome; bowels well relaxed; says she feels better, no pain; abdomen somewhat tumid but neither rigid nor tympanitic, and the lochial discharge more abundant. The digestive organs deranged, tongue coated, loss of appetite, and much thirst. The urinary apparatus normal. The child nurses well this morning but had not done so previously, owing as much to the mother's want of affection and inclination to have it nurse, as to the child's inability to accomplish the act. To take tinct. aconite and spt. ether. nit. instead of the ergot and bromide of potassium. Rested easier in the afternoon; respiration 30; pulse 142; temperature 105.2°; throat somewhat irritated.

8 P.M. Is much better, pulse 120, temperature 104°; no pain; spts. mindirerus to be added to the medicine now taken.

March 22nd, 4 o'clock A.M. Is very thirsty; drinks a large quantity of water, which she vomits. The tongue is cleaning and not so sore, but swollen a little.

At 10 o'clock A.M., was much better; pulse 120, temperature 103° F.

Eight o'clock P.M. Has been very restless through the day; pulse 122; temperature 103.8°; to take a Dover's powder at 9 o'clock.

March 23rd, A.M. Passed a quiet night; breathing better; pulse 126; temperature 103.8°. For the first time noticed a fine scarlet rash over face, temples, and neck; tongue clean, red, and papillæ prominent. At 7 o'clock the pulse had become slower, owing probably to the *viratrum viride* and aconite which I had previously ordered. Pulse 86; temperature 104.4°; respiration natural, and the rash well out over body and extremities. Complaints of hunger, and asked for eggs which were not allowed. *Viratrum viride* and aconite to be discontinued.

March 24th, 8.45 A.M. Had a restless night; pulse 132; temperature 105°. Owing to the increase in pulse and temperature, the *viratrum viride* was again prescribed. At 5 o'clock P.M., the patient was very prostrate and restless; pulse 130; temperature 103.8°. The medicine was discontinued at noon as she positively refused to take any more. I ordered her to have spts. *mindirerus 3ss*; every two hours, and to be sponged over the entire body with tepid water. Ten o'clock P.M., improved; pulse 114; temperature 101.1; has taken some beef-tea. To have at bed-time morphia sulph. gr. $\frac{1}{4}$.

March 26th. Was called suddenly to patient at 5.30 A.M., as she was supposed to be dying, and found attendants making preparations for her demise. Her pulse was scarcely perceptible to the touch, feeble, irregular, and beating from 85 to 90; temperature 101. Brandy was given and she revived. At 10 o'clock was easier and perspiring freely; pulse 81; temperature 100; to have beef-tea, milk and brandy. There was no change in the symptoms during the day.

March 26th. Was taken much worse, with high delirium, and struggling with attendants to get out of bed; had to be held with considerable force. She wanted her child destroyed,—thrown out of the window. Symptoms of puerperal mania rapidly manifested themselves; all affection for her child ceased, and the attendants were obliged to restrain the patient otherwise she would have done herself bodily harm. She continued to talk incessantly for 36 hours, never for a moment closing her lips, taking nothing whatever to eat or drink, and during the whole of this time required to be held in bed by attendants. Chloroform was administered to quiet the patient.

March 27th. Patient absolutely refused to take medicine, food, water, or ice; her tongue was

parched, fissured, and black, and the teeth covered with sordes. The pulse and temperature could not be taken. To quiet the patient I gave her an injection, per rectum, of bromide of potassium $\mathfrak{z}\text{ij}$ in solution which had the desired effect. After the stage of excitement came the stage of prostration. For 24 hours she remained perfectly quiet, uttering not a word, and during the whole of that time was without a taste of anything of any description. She would continually gaze around the room, and watch the movements of the persons near her in a suspicious, startled, maniacal fashion. Gradually these symptoms gave way to more favorable ones, and very soon unmistakable signs of convalescence were manifested. At first she would take little bits of ice, then medicine, a mixture of buchu and bicarbonate of potassa, and finally milk, yolks of eggs, beef-tea and brandy. The patient rapidly improved and asked for the babe, which she carressed as if she had just returned after a long absence, or the child had been lost and found. The patient continued rapidly to convalesce, and now, August 26th 1878, she is strong and healthy.

TRANSLATIONS FROM FOREIGN JOURNALS.

BY C. W. COVERNTON, M.D., M.R.C.S., ENG., TORONTO.

EDITORIAL OF *Le Progrès Medical*, AUG. 31, 1878.

For a long time several journals, in particular *L'Union Médicale* and *Le Progrès Medical* have endeavoured to introduce ameliorations in the teaching of State or Legal medicine, and have insisted upon practical exercises as absolutely indispensable for enabling physicians to act as experts in serious medico-legal cases. The first step has been taken in this direction, and our readers will remember that we have reported the exercises and teachings which for some months have taken place at the Morgue, under the skilful direction of M. Brouardel. This teaching will render incalculable service, as medico-legal autopsies are too often conducted in a very perfunctory manner. The case of Dauval is an instructive one in this matter. It will be remembered that the medical men summoned for the defence did not hesitate to blame strongly, and in terms that some may have considered as too forcible, the manner of conduct-

ing post mortems, by certain medico-legal experts. Nevertheless, M. Cornil was correct. Our personal experience comes in support of his affirmation, which finds still further justification in the following letter which we received two months ago, the tardy publication of which, however, does not diminish its interest.

JUNE 2nd, 1878.

"MY DEAR FRIEND—

I have just read with great interest, the editorial in the *Progrès*, relating to the Dauval case, and the expert evidence from a moral point of view. The author of the editorial says, page 419, that in many cases of autopsies of individuals found in the public roads and dying in the hospitals, a short time after their admission, have not been made with sufficient care. I can give you a striking example. It occurred in 1873. I was at the time the interne of Professor G. A man was brought in who had been picked up on a lonely road. The man breathed his last sigh at the entrance of the ward Sainte M. We could not ourselves make the autopsy. M— is sent by the Commissary of Police to perform it. I required from him his authority for examining the body, which was shown to me. The expert takes a scalpel, exposes the abdominal cavity, casts a glance at the intestines, without touching them, and the examination was over. After he had left the room, with his permission I continued the examination. I found an extensive fracture of the cranium, and other traumatic lesions of the thoracic organs. I remember perfectly the feeling of astonishment that seized me, when I saw made with so much unconcern, a medico-legal autopsy. But who could interfere. If this experience of a hospital interne can be useful to you, I give it to you in all confidence.

Yours, &c.

The object of our friend in addressing us this letter, and that which we follow in inserting it, is to draw the attention of all to the perfection it is proper to bring to the theoretical and practical teaching of Legal Medicine. If we examine that which occurs with the Faculties, we perceive that for more than four years, the teaching of Legal Medicine is conducted by Assistants, that in a word, there is no regular, complete, methodical teaching. Now, besides the practical exercises carried on at the Morgue, it is necessary that an accessible laboratory for the students who come here to finish their studies, should be annexed to the chair of the Faculty. It is to obviate these present inconveniences, that we give prominence to the following petition to the Municipal Council :

"The undersigned, considering that the apparatus placed at the disposal of medico-legists, is manifestly insufficient; that the establishment of the Morgue, where judicial autopsies are made, is absolutely wanting in the requisite means of study in view of the exigencies of modern science, the physicians being obliged to transport the organs under examination, to scientific institutions sufficiently provided with the means of investigation. That this deportation is repugnant to the moral sense, at the same time may give rise to suspicions, unjust, although inevitable. Whereas, under these conditions, whatever may be the scientific probity and the sentiment of duty animating experts, it is impossible for them to fulfil their function with the rigor and exactitude that their conscience exacts. Whereas social order is in the highest degree interested that the decisions of justice should be surrounded with the greatest respect. That for these reasons it is indispensable that they should depend on sources of information, the exactitude of which should be beyond all suspicion of insufficiency and carelessness; express the wish, that a Laboratory of Histology and of Toxicology should be established at the Morgue. Signed Metivier, Bourneville, Cadet, de Heredis. L'amoureux, Lionville, Thulee, et alia."

The idea which has prompted our friend M. le Dr. Metivier to formulate this wish is worthy of being taken into consideration. We shall be obliged if, in giving it publicity, our confrères of the medical press would themselves express their opinions, and indicate to the administration the reforms they may judge necessary.

[If a necessity for these strictures exists in Paris, where, next to Vienna, the most minute investigations in medico-legal cases have been presumed to obtain, with how much more force will they, as a rule, apply to the qualifications of medico-legal experts in this Canada of ours.—ED. CANADA LANCET.]

CANADA MEDICAL ASSOCIATION.

FIRST DAYS PROCEEDINGS.

The eleventh annual meeting of the Canada Medical Association was held in Hamilton, on the 11th and 12th ult. There was a large attendance of members. Dr. Workman, of Toronto, the President, occupied the chair.

Dr. Brodie, was present as a delegate from the American Medical Association, also Dr. Bush, of Utica, N.Y., and Dr. Colenso, visiting member

from England— These gentlemen were provided with seats on the platform.

The minutes of the last meeting were taken as read, after which the following new members were elected.

Drs. L. McFarlane, R. B. Nevitt, A. H. Wright, James White, F. Burt, R. A. Pyne, A. E. Senkler, Titus Crooker, A. Woolverton, Geo. Mackelcan, C. F. Bullen, Geo. Shaw, Ryall, C. F. A. Locke, Thomas White, W. Miller, E. O'Neil, T. H. Wilson, R. M. Bucke, J. M. Wallace, B. H. Lemon, J. Stewart, W. L. Billings, J. Leslie, T. W. Mills, R. J. Colenso, A. S. Fraser, N. E. Mainwaring.

Communications were read from several members at a distance.

The address of the President was postponed till the afternoon.

REPORTS OF COMMITTEES.

Dr. MULLIN read an interesting report from the Committee on Medicine.

Dr. MALLOCH read a report on Surgery which was warmly received.

Dr. RIDDELL, of Toronto, read a report on Necrology.

Dr. PLAYTER, of Toronto, read a report on Climatology.

Dr. RIDLEY, of Hamilton, read a report on Medical Literature.

NOMINATION COMMITTEE.

The following gentlemen were appointed a committee to nominate committees: Drs. Workman; Botsford, St. John's; Kerr, Nova Scotia; Cameron, Ontario; Macdonald, Ontario; David, Quebec; and Robillard, Quebec.

The Association then adjourned till three o'clock in the afternoon.

In the afternoon the first order of business was the President's address which will be found in another column and will well repay a careful perusal.

At the conclusion of the address—

Dr. BOTSFORD moved, seconded by Dr. CLARK, that the thanks of the Association be tendered to the President for his very able and eloquent address, and that it be handed to the Publishing Committee.—Carried unanimously.

Dr. WORKMAN acknowledged the compliment in a few suitable remarks.

Dr. BRAY, of Chatham, then read a paper on "Double Synchronous Amputation of Thighs."

After Dr. BOTSFORD had made some remarks,

On motion of Dr. ROSEBRUGH, seconded by Dr. BUCKE, the thanks of the Association were tendered to Dr. Bray for his paper, and that it be referred to the Publishing Committee.—Carried.

Dr. HINGSTON next read a paper on "Knee Joint."

A discussion followed, in which Drs. Canniff, Roddick, Harrison, Malloch, Howard, Rosebrugh and Bucke took part.

A motion was passed that in future all papers be read before the discussion takes place, Dr. Canniff objecting.

Dr. HINGSTON replied to some of the observations made on his paper.

Judge Sinclair was invited to occupy a seat on the platform.

A vote of thanks was given to Dr. Hingston for his paper, and that it be handed to the Publishing Committee.

Dr. REEVE next read his paper on the "Functions of Ophthalmoscopy."

The Association adjourned at six p.m.

Dr. and Mrs. Macdonald entertained the members of the Association and their friends in the evening and a very enjoyable time was spent.

SECOND DAYS PROCEEDINGS.

The chair was taken at ten a.m. His Honor Judge Sinclair and His Worship the Mayor were on the platform.

The minutes of the previous day's proceedings were read and adopted.

Dr. CLARKE, of Toronto, read an able paper on "Medical Testimony in Courts of Justice."

Dr. MACDONALD moved a vote of thanks to Dr. Clarke for his excellent paper.

Dr. PYNE seconded the motion.

Dr. HINGSTON, of Montreal, and Dr. Botsford continued the discussion.

A paper on "Cheyne and Stoke's Respiration" was read by Dr. R. ZIMMERMAN, of Toronto, which was discussed by Dr. R. P. HOWARD and Dr. WORKMAN.

Moved by Dr. COVERNTON, seconded by Dr. R. P. HOWARD, that a vote of thanks be tendered to Dr. Zimmerman for his very interesting paper.

Moved by Dr. CLARK, of Toronto, seconded by Dr. ROSEBRUGH, of Hamilton, that the thanks of the Association be tendered to Dr. Reeve, of Toronto, for his paper read last evening.—Carried.

Dr. R. P. HOWARD, of Montreal, read a paper on removal of "Retained Secundines."

Dr. ROSS, of Toronto, spoke of the great importance of Dr. Howard's paper, at the same time giving his own practice and experience.

Drs. Temple, Oldright, Malloch, Hingston, and Rosebrugh, continued the discussion,

Dr. CANNIFF, of Toronto, moved, seconded by Dr. TEMPLE, that the thanks of the Association be tendered to Dr. Howard for his valuable paper.—Carried.

The following new members were elected.—Drs. T. W. Poole, A. C. Reid, Chas. O'Reilly and M. O'Reilly.

The Association adjourned till 3 o'clock.

Dr. Workman took the chair at 3 p.m.

Dr. Bush, of the Utica Insane Asylum, exhibited some very fine sections of the brain, explaining the mode of preparation, etc.

Dr. Roddick, of Montreal, showed and explained the antiseptic apparatus in use in the Montreal General Hospital, after the plan of Lister, of Edinburgh; also the preparation of ligature, gauze, etc.

A motion by Dr. Howard, of Montreal, notice of which was given at the meeting in Montreal last year, relative to the employment of experts in medico-legal cases, was carried.

The Auditors of accounts presented their report, which was adopted.

Dr. CANNIFF, of Toronto, gave notice of a motion for next year, relative to the employment of experts in medico-legal cases.

Dr. BOTSFORD, of St. John. N. B., read the report of the Nominating Committee, which was adopted.

Dr. Macdonald, of Hamilton, President; Dr. A. H. David, of Montreal, Secretary; Dr. E. Robillard, of Montreal, Treasurer.

Vice-Presidents: Dr. Bucke, of London, for Ontario; Dr. Howard, of Montreal, for Quebec; Dr. Kerr, of Londonderry, for Nova Scotia; Dr. George Hamilton, of St. John, for New Brunswick.

Secretaries: Dr. Burgess, of London, for Ontario; Dr. Osler, of Montreal, for Quebec; Dr. Lawson, of Halifax, for Nova Scotia; Dr. L. Allison, of St. John, for New Brunswick.

The following committees were appointed to report at next meeting:—*On Publication*,—Drs. Osler, F. W. Campbell, Fenwick, with Sec'y. and Treas.; *on Medicine*,—Drs. J. H. Cameron, Toronto, Geo. Ross, Montreal, R. Zimmerman, Toronto; *on Surgery*,—Drs. Canniff, Toronto, McFarlane, Toronto, Roddick, Montreal; *on Obstetrics*,—Drs. McCallum, Montreal, Temple, Toronto, Frazer, London; *on Therapeutics, &c.*,—Hon. Dr. Parker, Halifax, Kollmyer, Montreal, Frazer, Sarnia; *on Necrology*,—Drs. Fenwick, Montreal, Fulton, Toronto, F. W. Campbell, Montreal; *on Medical Education*,—Drs. Covernton, Toronto, Workman, Toronto, Marsden, Quebec; *on Climatology*,—Drs. Botsford, St. John, Kerr, Londonderry, Larocque, Montreal, Oldright, Toronto; *on Ethics*,—Drs. Howard, Montreal, Macdonald, Hamilton, Robillard, Montreal, Hingston, Montreal, Parker, Halifax, Marsden, Quebec, Grant, Ottawa, Workman, Toronto, Botsford St. John, Buck, London, Clark, Toronto.

The next meeting will be held at London, Ont., on the first Wednesday in September 1879.

Dr. KERR, of Londonderry, Nova Scotia, read a very interesting paper on "Extra Uterine Pregnancy," in which the members took great interest.

Dr. ALT, of Toronto, read a paper on "Disease of the Eye in relation to General Disease," in which he forcibly showed the necessity to the specialist of a thorough knowledge of general

medicine, and gave some very interesting facts in regard to the treatment of diseases of the eye.

Dr. J. W. ROSEBRUGH, of Hamilton, read a paper on "Displacements of the Uterus, Dysmenorrhœa, Sterility."

The discussion was continued by Dr. Ross and others, and at the close a vote of thanks was accorded Dr. Rosebrugh for his valuable paper.

Dr. A. M. ROSEBRUGH, of Toronto, read a short paper on "The Indications for the Operation of Enucleation of the Eye," in which he pointed out the necessity for the operation and the good results in saving the sight of the eye remaining.

Dr. CANNIFF, of Toronto, gave the gist of a highly interesting paper on "Diphtheria," but as it was getting late there was very little discussion.

A paper on "Aphasia," by Dr. Freeman, of Milton; one on "Rotation of Fœtal Head from Occiput Posterior," by Dr. Ross, Toronto; and one on Cheiloplastic Operations, by Dr. OLDRIGHT, were taken as read.

A vote of thanks was given to the President for his services in the chair.

The usual vote of thanks was tendered to those gentlemen who read papers, and all the papers read were ordered to be printed in the transactions of the Association.

Votes of thanks were also tendered to Dr. and Mrs. Macdonald for their kind entertainment; to the Committee of Arrangements, and to the Secretary and Treasurer of the Association.

In the evening the members of the Association were entertained at Dinner, in the Royal Hotel, by the Hamilton Medical and Surgical Society. The large dining hall was beautifully decorated for the occasion, and presented a most inviting appearance.

The chair was ably filled by Dr. Macdonald, President of the Association, and the vice-chair by Dr. Mullin. On the right of the Chairman sat Hon. F. Leland, U. S. Consul, F. E. Kilvert, Mayor, Dr. Mack, St. Catharines, on the left of the chair, Dr. Workman, Toronto, His Honor Judge Sinclair, and Dr. Brodie, Detroit.

After full justice had been done to the good things *provided*, the usual loyal and patriotic toasts were proposed and responded to. The Chairman in proposing the "Governor General," paid a high compliment to Lord Dufferin, who, he said, had by his administration in Canada endeared himself to the hearts of the people.

Dr. McCARGOW, of Caledonia, sang, "The Fine Old Irish Gentleman" in capital style, the company joining heartily in the chorus.

The "President of the United States," was ably responded to by Hon. Frank Leland, U.S. Consul. The "Mayor and Corporation of Hamilton" was responded to by Mayor Kilvert. The vice-chairman then gave the "Army, Navy, and Volunteers," responded to by Drs. Botsford, Canniff, White,

Ryall, Nevitt, and Beemer, all of whom dwelt upon the readiness of the respective corps to *do their duty* in any emergency.

"The Red, White and Blue" by Dr. McCargow, and "The Englishman" by Dr. Powell, of Ottawa, were admirably rendered and warmly applauded.

The Chairman in proposing "The Canada Medical Association" made a few appropriate remarks. He had the pleasure of welcoming the members of the Association to Hamilton, and trusted that their deliberations would have a beneficial effect. There could be nothing more useful to the medical profession than to meet and generously aid one another by the circulation of the knowledge which they respectively possessed. There was need of more professional sympathy. He had felt this by personal experience. Such gatherings as this helped greatly to assist them in cultivating this virtue. He trusted that the Association would go on and prosper, and that the members of the profession would become more and more united.

"Our Guests" was replied to by Drs. Workman, Mack, Brodie, Roddick, Kerr and Bucke, all of whom were loud in their praises of the Hamilton Medical and Surgical Society, and the courteous manner in which they had been treated during their stay in the city.

The "Medical Schools of Canada" was responded to by Drs. Temple, McFarlane, Oldright, and Roddick.

After a few songs, "The Ladies," the "Press," and a few volunteer toasts the company separated, having spent a most pleasant evening.

During the meeting of the Association the firm of John Wyeth & Co., exhibited some of their elegant preparations, which were much admired by those who examined them. Their dialized iron is probably the best that is made, and they are about the only manufacturers of compressed powders and pills. Their preparation of beef, iron and wine, displays a high degree of excellence, and is more agreeable to the taste than beef tea. All the preparations exhibited were of the most perfect character, and their exhibition gave much satisfaction to the members of the Association.

The Galvano-Faradic Co., of New York, was ably represented by Mr. Reid, who exhibited some very valuable Electric machines for Medical and Surgical use. The Pifford Galvano-Cautery stands unrivalled as a Caustic battery. These machines are all equipped with the latest improvements, and are the most reliable in the market.

The "Canada Vine Growers Association" also gave an exhibition of their native wines, which were highly appreciated. Their wines are made at Cooksville, Ontario, from the pure grape, and have been pronounced by connoisseurs equal to the best French wines. They manufacture several varieties, the principal of which are the Sauterne,

a very fine wine; the Madeira, a nice sweet wine; the Savigny and Vin de Porto. Many who examined these wines for the first time were surprised to learn that wines of such excellent quality could be manufactured in Canada. The Government, in order to encourage native manufacture, have remitted the duty, so that these wines which are most excellent can be supplied more cheaply than the imported article.

Selected Articles.

SUGAR COATED PILLS,

Those who have read the published proceedings of the American Pharmaceutical Association for the past year or two, will remember the discussions concerning "ready made pills," and in the "Journal of Pharmacy" Prof. Jos. P. Remington and Mr. Samuel Campbell, of Philadelphia, have indulged in quite a *pill battle*, which was much safer than *bullets* though the *missiles* are so similar. But this is an important subject, and physicians should take care they are "posted," that their selections of these pills may be both judicious and intelligent.

For their information, I propose, in my feeble way, to briefly give my observation and experience concerning these Sugar Coated Pills, which are in such universal demand and use.

The well-known, standard ready made pills are embraced in the following list, viz: The official ready made pills; the "soluble pills," pills from Messrs. Schieffelin & Co., of New York; the gelatine coated pills from McKesson & Robbins, of New York; the compressed pills from John Wyeth & Bro. Each of these claim superior merit and value, because of the relative solubility of the officinally prepared pills, and those prepared by *compression*, or by coating with gelatine, sugar, etc. In this paper I shall particularly discuss the *sugar coated pills of the day*—for the reason above mentioned, that they are most generally manufactured and prescribed, and called for by the people. For a pill to be valuable and reliable, it must be composed of pure drugs, be equally distributed in the mass, of uniform weight, and readily soluble in the stomach. It is a question of some difference of opinion, among those who have examined the subject, which of the above mentioned pills are most soluble, admitting they are all honestly and skillfully prepared. Unfortunately, there is great adulteration and swindling in these covered or coated pills—the temptation being so great to make money by thus covering over and hiding the impure and worthless drugs—and obtain patronage over the head of their *honest* competitors, by selling *cheap* pills. I cannot lose this opportunity to caution against *cheap sugar coated pills*—and advise the *greatest* care in mentioning the

manufacturer's name, when prescribing such pills. We cannot be too careful, especially when using quinine pills, as so often life depends on the prompt action of this invaluable medicine in our malarial diseases. It is admitted by all, that our official pill is the most soluble, provided, the proper excipient is employed in preparing them, as licorice, or what is much better, pure glycerine. Next comes the sugar coated or compressed pills, each advocated by intelligent pharmacists, as being the most soluble. In my experiments I have found very trifling difference between the two, when the sugar coated pill was properly selected—the *manufacturer*, being an important consideration.

In a trial with *nine* different manufacturers I, have found *none superior* to Bullock & Crenshaw's of Philadelphia—who nearly twenty years ago introduced sugar coated pills to the profession in the United States. When they introduced these pills there was not a firm in Philadelphia, or the state of Pennsylvania, making them, and but one other on the Continent. Through all these long years these pills have been in the hands of all druggists, all over the land, and not a breath of suspicion has ever been whispered against their purity and reliability. No greater commendation could be asked for. These pills received, among others, the award of a Centennial medal, for superiority of finish and purity of ingredients, after a critical examination by medical men of ability and skill.

Undoubtedly a fair test of solubility would be dependent upon the varied conditions of the fluids or contents of the stomach, which cannot be obtained. We are, therefore, compelled to select a fluid as nearest approximating the average state of the dissolving powers of the organ, with a temperature of about 98° Fahrenheit, the acidity, alkalinity and digestive powers in average proportions.

After testing the solubility of all the ready-made pills before mentioned, I found from the samples furnished me, the sugar-coated pills most soluble, with conditions as above. Those used in the experiment were from those of Bullock & Crenshaw, W. R. Warner & Co., Hance Bros. & White, and W. H. Schieffelin & Co. There was really no material difference in the sugar-coated pills of the firms named—a small advantage in favor of the first one. I will give from the tabulated record I have preserved, the result of the Bullock & Crenshaw pill.

I will take the two-grain quinine pill (sugar coated) and the Pil. Cath. Co. U. S. P., as samples, (also sugar coated). In a one and a half ounce solution of water at 98 deg., acidulated—the quinine pill-coating came off in five minutes, and disintegrated in twenty minutes.

The *Pil. Cath. Co., U. S. P.*, was *fully* disintegrated in *forty* minutes.

In acidulated water 98° F., and a small addition of pure pepsin (E. Shiefer) quinine pill was dissolved in twenty-six minutes.

The *Pil Cath. Co. U. S. P.*, in a state of solution in twenty-two minutes,

In each experiment the vessel containing the pills and solution was kept in constant to-and-fro motion.

Other sugar coated pills of Bullock & Crenshaw yielded relatively the same proportional results, tested with similar solutions—having in my possession the following, viz: Sul. Morphia 1-6 gr.; acid arsenious 1-20 gr.; pil. pulv. ext. coloc. co. 2½ grs.; podophyllin ¼ gr.; pil. cinchonidia sul. 1 gr.; pil. phosphorus comp. (phosphorus 1-60 gr. nux vom. ½ gr.); pil. monobromated camphor 1 gr.

I carried the experiment of the B. & C. pills further to determine the quantities of ingredients in each. Of the quinine pills I dissolved several containing five grs. in a quantity of water, acidulated with a few drops of dilute sulphuric acid, from which the quinine was precipitated by water of ammonia, and agitated with ether, which was removed by a pipette to a weighed watch-glass. The quinine was left in a sticky mass after evaporation, which I dried at a moderate temperature, and weighed—thus determining the amount of crystallized sul. quinine. The yield was the full quantity claimed.

The market is filled with spurious coated pills, especially of quinine—since the recent advance in price and great demand; and we should exercise the most scrupulous care to guard against impositions which are being attempted on the profession, as well as the community at large. There is no doubt but the most prominent disadvantage in the use of these pills is their *insolubility*. Some of these nine samples were very difficult to dissolve, only yielding to prolonged application of heat, even after disintegration. Those that did so readily dissolve, deserve great praise and credit, and should be remembered by every physician who reads this paper. The most persistent vigilance of the physician, not only as to sugar coated pills, but all pharmaceutical preparations, is the only remedy that will enable us to guard carefully against impositions of this character. The profession of the pharmacist will be yet more advanced and elevated to that perfect standard which is of such vital importance, when the products of the manufacturer come to be more frequently and critically examined. Testimony, at last, is the only way of arriving at the value of any of these pharmaceutical preparations.

[It is gratifying to know that this nice method of administering drugs can be relied upon, at least, in the case of those prepared by certain of our large and well known manufacturers in this line. We can substantiate the statement of our con-

tributor in the above article, having for a number of years used these pills with great satisfaction, especially with delicate and fastidious patients.—*Ed. (Southern Med. Record.)*

TYPHOID FEVER, WITH HYPERPYREXIA TREATED WITH SALICYLATE OF SODA.

UNDER THE CARE OF DR. RANSOM.

For the following notes we are indebted to Mr. W. J. Cant.

CASE 1.—J. P——, warehouseman, age thirty-six, had complained for two or three weeks of slight weariness until Friday, November 2nd, 1877, when he was taken suddenly ill. He immediately went to bed, but soon became worse. On the 5th he was slightly delirious, and on the 7th more so. He was admitted into the hospital on the afternoon of Nov. 7th, being the 6th day of the fever (counting from the time he took to bed), suffering as above said. The aspect was that of a person with fever, and there was a widely-diffused rash on the trunk and extremities, consisting of rose-coloured spots, slightly elevated, disappearing on firm pressure. There was in addition, a streaked, dusky-reddish mottling of the skin between the spots. The delirium was pronounced and of a restless character. The tongue was covered with a thick, white fur. The pupils were natural. There was retention of urine, relieved by a catheter, the urine which was drawn off being dark-red in colour, and slightly albuminous. Bowels moved once in the evening, the stools being of a dark-brown colour and firm in consistence (had not had a motion since previous Saturday, Nov. 3rd.) At 2 p.m., soon after admission, the temperature was 104.2°. Salicylate of soda was ordered, but could not be administered just then. At 9 a.m. the medicine was commenced, twenty grains being given at first every hour per rectum. At that time the temperature was 105.4°, and the delirium was violent.

Nov. 8th.—At 9 a.m. he had had 180 grains of the salicylate, and his temperature had fallen to 98.0°, the delirium being considerably reduced, but still sufficiently evident. At 9 p.m. he had taken sixty grains more, and the temperature was 98.6; delirium moderate, yet constant. The catheter had to be used night and morning.

7th.—At 9 a.m., the temperature was 99.2°; very little delirium, milk taken freely. At 6 p.m., violently delirious; temperature 101.0°. Urine still had to be drawn off. The medicine to be taken again, fifteen grains every three hours.

10th.—At 9 a.m. temperature 100.0°; had taken only thirty grains of salicylate in the night; delirium violent; bowels moved by aid of a water enema; abdomen flaccid; some fresh spots observed.

11th.—At 9 a.m., temperature 102.6°. Had taken ninety grains of salicylate of soda in twelve hours. Delirium violent. At 9 p.m. temperature 103.4°. Had taken ninety grains of salicylate in the twelve hours. Bowels open without aid. Food taken badly. In the evening a draught of thirty grains of bromide of potassium and fifteen grains of chloral hydrate was ordered.

12th.—At 9 a.m. temperature 103.4°. Had taken ninety grains of salicylate in twelve hours. Delirium constant and violent. Refused food. Greatly weakened in muscular power. Urine passed involuntarily, and bowels moved without evidence of consciousness; stools loose. At 6 p.m., temperature 105.0°. Had taken eighty grains of salicylate in eight hours. Thus he had taken two hundred and forty grains between 9 p.m. on Nov. 7th, and 9 p.m. on Nov. 8th, and in that time (twenty-four hours) the temperature had fallen from 105.0° to 98.6°. After the gradual rise of temperature, and the second exhibition of the drug, he took, between 9 p.m. of Nov. 9th and 5 p.m. of Nov. 12th, (i.e., sixty-eight hours) four hundred and seventy grains of salicylate of soda without apparent benefit. The treatment was then modified, the salicylate being continued in fifteen grain doses every three hours; he was sponged in bed with water at 65°, gradually reduced to the ordinary temperature of the supply (50°), for forty minutes, and then, his temperature having fallen to 101.6°, he was lightly covered with the sheet only and allowed to dry. At 8 p.m., the temperature having risen to 106.4°, the cold sponging was again resorted to for fifty minutes, and the temperature fell to 103.2°; he was again covered lightly. Several attacks of convulsions followed. At 10.30 p.m., his temperature was 107.0°, the patient being in a state of extreme exhaustion. Cold sponging was again resorted to, but did not affect the temperature. At 12 o'clock, the temperature was 106.4°, and at 12.45 the patient had a severe convulsion, in which he died. At the autopsy were found the characteristic lesions in the intestines of typhoid fever.

CASE 2.—C. S——, aged ten, was admitted on Sept. 10th, 1877, with acute tonsillitis, having much the aspect of diphtheria, and treated as such at the time. The temperature on admission, (3 o'clock) was 101°; the urine was high-coloured, and contained albumen. On the eighth day after admission, she was only passing six ounces of urine in twenty-four hours, but it gradually increased to its normal amount. Her general condition slowly improved, and on Nov. 11th, the albumen having totally disappeared, she was made an out-patient. On Nov. 30th she was again admitted, with feverish symptoms and mild delirium. The urine was loaded with albumen, and deposited granular casts and blood-cells; it gradually diminished in quantity to eighteen ounces per diem.

The temperature on Nov. 12th, at 9 p.m., was 105.2°. Eight grains of salicylate of soda were given every four hours. The temperature was reduced to 101° on Dec. 5th, at 9 a.m. The dose was then reduced to four grains, but the temperature on Dec. 6th rose to 104°. On the 8th eight grains of salicylate of soda were given. On the 11th the temperature was 98.4°, and four grains of salicylate of soda were given. The temperature, however, gradually rose to 105° on the 17th, and she became slightly delirious. On the 18th she had a severe rigor, during which the temperature in the rectum was 108.4°. Soon afterwards she died.

During the attack the child had had no characteristic eruption of typhoid. The autopsy revealed the intestinal lesions of typhoid fever. Distinctly marked ulcers were present, and there was a recent perforation of one of them.

PROF. BILLROTH'S OPERATION FOR CYSTIC GOITRE.

The *Medical Times and Gazette*, (London) says:

For cystic bronchocele, Prof. Billroth has operated fifty-two times. On two occasions he simply tapped it with a middle-sized trocar, and in both cases intense inflammation arose, rendering incision necessary in one, and extirpation in the other. He has abandoned the practice, but regards puncture for the purpose of diagnosis as harmless. Tincture of Iodine, after the fluid has been allowed to discharge itself without squeezing the tumour, has been injected in thirty-four cases, with twenty-nine recoveries, half an ounce of that of the British Pharmacopœia, (which is nearly twice as strong as that of the Austrian) having been thrown in. The patient is then sent to bed, and a pretty firm calico bandage, smeared with collodion, bound around the neck. This, in general, falls off on the third day, and at first great swelling and accumulation of gas occur, but when these diminish during the first week, there is no need of interference. The absorption sometimes takes place very slowly, occupying often a whole year. The walls of the cyst do not adhere together, consequently, upon reaction, as has been represented both with regard to bronchocele and hydrocele, but the lining membrane ceases to secrete, in consequence of the deposition of iodine. Incision, with drainage, was successfully performed in two cases; and in twelve Chelias' operation of incision and connection of the walls of the cyst and the skin by sutures was resorted to, nine of the patients being cured, and three patients dying. The painful procedure of cauterizing by chloride of zinc was once resorted to. In one case in which pure alcohol was injected, fearful acetic fermentation was set up, and the patient soon died in a septic condition. In

two cases a diminution of the tumour was produced by puncturing with a medium-sized trocar; but in a third, suppurative inflammation was set up, which rendered incision necessary. Of thirty-seven cases in which extirpation was performed, twenty-four recovered; but in some of these, other measures had been previously resorted to, which had induced suppuration. The arteries were immediately tied so as to often reduce the hemorrhage to a minimum.

HYDROBROMIC ACID IN TINNITUS AURIUM FROM CONGESTED BLOOD SUPPLY.

Edward Woakes, M.D., Surgeon to the Throat Hospital, London, writes to the *British Medical Journal*: This drug having established its claim to antagonize the ear symptoms occasioned by large doses of quinine, there appears to be but one step between this fact and the inference that it should be equally efficacious in analogous states of the ear arising from other causes. Viewing certain forms of tinnitus as possessing marked analogy to the condition induced by quinine—one, that is, of congested labyrinthine circulation—I have prescribed certain remedies with a view to the relief of this most distressing symptom; among these codeia, with some advantage, but not in any degree comparable to the results attending the hydrobromic acid. It may be needless to remark that the cases should be selected with a view to their appositeness to the presumed physiological action of the drug; and the indication which should be regarded as most distinctly pointing in this direction is that the noises have more or less of a pulsating, or, as the patient will describe it, a "knocking" character. The existence of vertigo, if present, will rather confirm the indication for the exhibition of the acid. The subjoined cases are intended to illustrate these remarks, and are taken from a number of others under recent observation.

F. C., aged twenty-four, was the subject of otorrhœa media, associated with tinnitus of a very distressing character. This latter symptom persisted long after the others had yielded to treatment. The patient, a fairly intelligent mechanic, described the noises as increased on lying down, when they became "like the knocking of his heart." He was ordered fifteen minims of hydrobromic acid in water every four hours. At his next visit he stated that, after taking three doses, the noises had much diminished, an improvement which steadily continued, so that at the end of a week he considered himself well.

J. T., a chorister, aged thirty-three, presented an acutely inflamed condition of the lining membrane of the middle ear, which projected through a large

central perforation of the drumhead. The external meatus was red and tender in its deepest portion, and near the membrane were two granular polypoid growths. There was abundant otorrhœa, of a very foetid description. After removal of the growths from the external canal, the subsidence of the inflammatory state of the tympanic cavity, together with the discharge, he still complained of pulsating noises in the head, increased by walking or stooping, headache and occasional giddiness. The hydrobromic acid was given, as in the previous case, with an equally rapid disappearance of all the symptoms associated with the innitus.

Two points appear important to secure the success of the drug. 1. The auditory apparatus must be clear of any well marked objective morbid process, 2. The tinnitus should present the characters of *congested blood-supply*, already alluded to. In mentioning the foregoing facts at a recent discussion at the Harveian Society, owing to the lateness of the hour, the distinctive indications for the successful administration of the drug, were not insisted upon, an omission which, I trust, this communication will sufficiently rectify.

TREATMENT OF CHRONIC CYSTITIS BY STRONG SOLUTION OF NI- TRATE OF SILVER.

It is scarcely necessary that I should tell you that in the treatment of chronic cystitis, as in that of a great many other surgical affections, the first indication is to remove the exciting cause. Fortunately, in a large number of cases, as for instance in those dependent upon the presence of calculus or other foreign substance in the bladder, of stricture of the urethra or of excessive alkalinity of the urine, this is entirely practicable, and when it is accomplished the rapidity with which the morbid action subsides is sometimes truly astonishing. In calculus and phosphatic urine, nothing more is usually necessary, although it does occasionally happen, especially in old people, that the anatomical changes resulting from the long persistence of the inflammation continue to vex the patient long after the original source of trouble has been corrected. Where this is the case the special line of treatment which I am about to describe will frequently prove successful.

Resolution of the inflammation does not so often follow the dilatation of old strictures, notwithstanding the fact that the bladder is thus enabled to empty itself completely. This is due principally to the hypertrophy of the muscular coat which has occurred in consequence of the accompanying tenesmus. Where such alteration has taken place, only palliation should be expected, and the patient may be obliged to wear a rubber urinal all the rest of his days. But as it is not always pos-

sible to determine in advance the existence of such a degree of hypertrophy, I make it a rule to subject all such patients to the curative treatment, trusting that some of these may thereby be materially benefited.

If the disease is dependent upon enlargement of the prostate gland as we so often see in old men, the state of affairs is in some respects like that met with in stricture of the urethra, with the difference that in the latter we have some expectation of getting rid of the producing cause, while in the former we have no such hope. Nevertheless by the daily introduction of a large-sized catheter, washing out the organ occasionally with some stimulating astringent, such as nitric, or better, hydrochloric acid, two drops to the ounce of water, and the internal administration of balsam copaiba, the inflammation may be often subdued. If these remedies should fail, the heroic treatment presently to be described should be resorted to.

And now I take pleasure in exhibiting to you again, the patient from ward 8, for the purpose of illustrating my further remarks.

This man, as you are aware, has been the subject of severe stricture of the urethra for several years, and presented, until very recently, all the symptoms of confirmed chronic cystitis. When I took charge of the ward, a few weeks ago, the stricture had been pretty well dilated by my predecessor, so that a No. 9 bougie could be slowly introduced by the patient himself, any undue haste inducing severe tenesmus. The symptoms of cystitis however, had not much abated. His desire to urinate was incessant, and it was only by great effort accompanied by much suffering that he could restrain the evacuation for an hour at a time. While he was in bed he was compelled to keep a urinal between his thighs continually, otherwise he was not able to sleep for frequent necessity of rising. The urine, upon standing, as you have just now seen, separated into two parts, the upper tolerably clear, the lower opaque, thick, tenacious, yellowish in colour, and loaded with phosphates. Upon decanting the former, the latter, you noticed, clung in stringy masses to the bottom of the glass, and upon close inspection was found to consist of mucus and pus. Vesical tenesmus was not very frequent, although at times severe. Introduction of the finger into the rectum was productive of so much pain that the attempt to ascertain thus the thickness of the walls of the bladder was not satisfactory.

He was first put upon the use of copaiba and cubebs, which of all the internal remedies employed by surgeons in such cases, hold deservedly, in my estimation, the highest place. In private practice I am in the habit of using an unofficial preparation known as the compound extract of cubebs and copaiba, which is nothing more than solidified balsam combined with powdered cubebs

and some other minor ingredients, and made into a paste which is not disagreeable to take. Of this a pill of 20 or 25 grains may be swallowed two or three times a day. In whatever manner the two remedies may be combined, they not unfrequently disturb the stomach and bowels, and require the addition of a little opium and tannin. The best time to take the remedy is about two hours after eating. The effect upon the local symptoms is sometimes truly magical, and the patient passes in a few hours from a state of despondency to one of decided exhilaration in consequence of the great and sudden relief from painful micturition. By continuing these remedies for two or three weeks, employing at the same time a general tonic course if necessary, a cure may be sometimes produced, or, at any rate, such a degree of amelioration as to fully satisfy the expectations of the patient. I have sometimes thought that the addition of bicarbonate of potassa increased the efficacy of the medicine, but am not quite sure upon this point. I have not much confidence in *uva ursi*, notwithstanding it is so highly commended by my venerable private preceptor, Professor Gross, and still less in *buchu*. I have had no experience with *cimicifuga*, *pareira brava*, *triticum repens* or *matico*.

If the *copaiba* and *cubebs* alone or in connection with the other means just enumerated should fail, as has happened in the case before us, local applications by injection are called for. For this purpose the following remedies may be employed in quantities sufficient to wash out the bladder thoroughly; nitric or hydrochloric acid (*mj* to *f3j*), liq. sodæ chlorinat. (*mx* to *f3j*), carbolic acid (grs. *v* to *f3j*), tanic acid (*3ss* to *f3j*.) I have tried all of these repeatedly, and a great many other washes, but except in very mild cases, and as an adjuvant to the *cubebs* and *copaiba*, have laid them aside. The remedy upon which I now rely almost exclusively is nitrate of silver in solutions of such strength as will make a decided impression upon the inflamed membrane. Those of you who are aware of the great caution advised by nearly all surgical writers and teachers in reference to the use of this salt as an injection into the bladder, and their timid recommendation of a solution not stronger than *half a grain to four ounces of fluid*, have doubtless been somewhat startled when you have seen twenty grains, thirty grains, forty grains to a single ounce of water thrown into the organ with impunity, and with decided benefit to the patient. It is now nearly twenty years since I recognized the absurdity of weak solutions, having remarked that they no sooner reached the bladder than they were immediately decomposed and thus rendered entirely inert by the few drops of urine which they are always sure to encounter there despite the most thorough irrigation and the most rapid change of apparatus. Aside from this, I could see no good reason why the mucous coat of

the bladder should be an exception to all other similar structures, such, for instance, as the conjunctiva, the lining membrane of the fauces, the larynx, the trachea, and the uterus, to which surgeons are in the habit of applying not simply strong solutions but the solid salt itself. It seemed to me that it was only necessary to provide for the quick withdrawal of the fluid or its rapid decomposition, after allowing it to remain in contact with the inflamed surface for a few seconds, and no damage could occur from solutions even stronger than those already mentioned. After considering the question from this point of view, the first case that came into my hands was that of a young man, who several months previously had suffered paralysis of the lower half of the body, including the bladder, from spinal injury. The paraplegia had entirely disappeared, but the cystitis, which had resulted from neglectful retention of urine, was unabated, and he had not the slightest control of the function of micturition, the water dribbling from him continually. After washing out the cavity thoroughly I injected an ounce of a solution *3ij* to *f3j*, permitted it to remain about ten seconds, and followed its withdrawal by an injection of a solution of iodide of potassium in order to decompose any of the former which failed to escape through the catheter. After a week or ten days, sufficient improvement was manifested to justify a repetition of the operation. I then used the same quantity of a solution of the strength of *3j* to *f3j*. The effect was all that could be desired. The symptoms improved within three or four days, and in less than a fortnight the patient returned to his home in Alabama entirely cured.

Before entering into further details, permit me to impress upon you two or three points of paramount importance in the use of this remedy. First of all *be sure that you are dealing with a case of genuine chronic cystitis*. Simulation of the disease, as already stated, is not uncommon in hysterical women, and irritation of the surrounding parts sometimes gives rise to symptoms which may mislead the unwary. Especially guard against the mistake of considering what is termed "irritable bladder" a condition of inflammation of the organ. You may rest assured, that where a tolerably abundant discharge of vesical mucous is wanting, chronic cystitis does not exist. In the second place, be equally certain that the exciting cause has been removed, or at least so modified as to exert no further influence upon the disease. And in the last place, never undertake this method of treatment unless the urethra is sufficiently large to admit a No. 9 or 10 catheter.

The only other instrument required besides a catheter of the size just mentioned is an elastic bag capable of holding one or two fluid ounces, and provided with a bone or hard rubber nozzle well fitted to the former.

My custom is to begin with a 20 grain solution of the temperature of the body, using at least an ounce, so as to reach the entire surface of the interior of the organ. If no decided improvement should occur in the course of a week or ten days, the injection should be repeated, increasing the strength of the solution to thirty grains. No impression having been made by this last, the strength may be further increased, until a drachm to the ounce has been attained.

An important point to determine is the length of time the solution should be allowed to remain in the bladder. This must vary somewhat in different cases. If severe pain is instantly produced, two or three seconds is long enough for the first injection. If, on the contrary, the suffering is not considerable, eight or ten seconds may be allowed to elapse.

To remove the fluid it is only requisite to keep the nozzle of the bag closely pressed into the mouth of the catheter, and to relax the grasp of the hand upon the former. In this way nearly the whole of the fluid will be drawn back into the bag, and the remainder will readily escape by turning the patient upon his side.—*Med. News & Library.*

USES OF VASELINE.

It has appeared to me for some years that a more perfect demulcent and protective substance than had come to my knowledge, was desirable and might be obtained. As none of my experiments at compounding satisfied myself, it would be worse than useless to give an account of them here.

None of the oils are sufficiently persistent in adhesion to either granulating, erythematous or inflamed surfaces; they flow into globules, are washed away by secretions, or are too rapidly absorbed by bibulous fabrics placed in contact.

The unguents are too tenacious to spread or to be applied without giving pain to tender surfaces. If perfectly recent and sweet at first, they become rancid in a few hours after being applied. Cerates are subject to the same objections, and the skins of many persons are irritated by fats in any form.

A few months ago I received in pamphlet form some articles written by Dr. DuBois, of San Rafael, California, in which the qualities of Vaseline, a product of petroleum, are highly praised. I have made some trials with the article and am very much pleased with the results. It appears to me to be the most thoroughly bland and soothing covering to irritable surfaces, the most perfect lubricant where friction is painful, and the most free from offensive odor, either in its recent pure state, or after long contact with diseased surfaces, of any article which I have used.

It resists the action of the atmosphere, is not in-

flammable at any temperature within our necessities. It holds powders and extracts in mechanical suspension as well as ceratum simplex, and uncombined is more grateful to a sensitive surface.

I have so used it for dressing newly cauterized surfaces, fissures, etc., for vaginitis, both acute and chronic, for balanitis simplex, for prurigo and lichen, and for smearing probes, catheters, bougies and *aspirator needles*.

It is an excellent covering for all metals, and does not soil hands or clothes as badly as cerates. Dr. DuBois has made some use of it by internal administration, and thinks that it may take the place of cod-liver oil in many cases, *than the best of which*, it is much less offensive.

It is certainly not saying too much, to aver that it is the best and most convenient of the *hydrocarbons* for use in the surgeon's office; and I cannot doubt its great value in obstetric practice, for which Dr. DuBois gives it apparently extravagant praise.—Dr. Beech, *Toledo Medical and Surgical Journal*.

STRANGULATED FEMORAL HERNIA WITH UNUSUAL SYMPTOMS.

BY WILLIAM EVANS, M.R.C.S. ENG., L.R.C.P.E.

The following case, which occurred recently in my practice, seems to present some features which may entitle it to be placed on record.

Miss N. M.—, aged fifty-eight years, had frequently, during an interval of eight or ten years, obtained by messenger some medicines for the relief of attacks of colicky abdominal pains, generally accompanied with constipation. Being of a somewhat timid and reserved disposition, and having an aversion to being examined by a medical man, I had not, prior to the attack about to be described, had an opportunity of personally examining her, and this seemed the less necessary inasmuch as her attacks had hitherto yielded to an anodyne and antispasmodic, combined with some antacid, and followed by a brisk purgative.

The present attack commenced early on a Monday morning, and, contrary to its usual history, there had been a sharp diarrhoea and vomiting preceding it for some days, which still continued at the time relief was sought. The usual draughts were forwarded about 4 A.M., and about 10 A.M., her brother called stating no relief had been obtained. On visiting her I ascertained that the vomiting had ceased shortly after the medicine had been taken, but the pains and diarrhoea she affirmed persisted. I also elicited that there was a small lump in the right groin, which she said had been there for years, and which she reluctantly consented I should examine, alleging she was certain it had nothing to do with the attacks, although

upon close questioning she was obliged to admit it felt a little harder than usual, and had also done so during her former attacks. This tumour was situated just under Poupart's ligament, its longer axis (about two inches and a half) parallel to it; it felt hard and movable, and lacked all the characteristic feeling of hernia, except that on coughing I thought I could detect a very distinct impulse. An attempt at taxis proving unavailing, anodynes and fomentations were ordered, and a mild aperient administered much against her will, as she feared the diarrhoea, which, however, had not troubled her since about 8 A.M. The symptoms continued much the same the rest of the day, and in the evening, the aperient not having acted, an enema was given. On Tuesday, the symptoms persisting, another ineffectual attempt at taxis was made under chloroform, and the rest of the treatment consisted of opiates and repeated enemas. On Wednesday, vomiting, which had been in abeyance since Monday, became a little troublesome, but not very persistent, and there was no other change in the symptoms, except that the tumour was rather harder, the impulse on coughing entirely absent, and the feeling more unlike that of hernia than at first. I advised a consultation with Dr. Lloyd, surgeon, of Llangefni, who agreed as to the doubtful character of the tumour, and counseled temporising for a day, giving small doses of calomel at intervals, with opiates and belladonna to allay pain and continuing the enemas. On Thursday Dr. Lloyd again saw the case with me, and as the symptoms were still not very urgent, a delay of another day was advised and agreed to, and the same treatment continued. On Friday the symptoms became more urgent, the vomiting being uncontrollable and the pains more severe, with some distension of the abdomen. The case altogether wore a more serious aspect. Dr. Lloyd was telegraphed for, and he agreed to adopt the safe old maxim—"When in doubt, operate." With his assistance I divided the usual superficial coverings and brought to view a dense fibrous mass, which we had some difficulty in recognising as an enlarged and altered inguinal gland. Having regard to the doubtful character of the tumour, my first impulse was to close the wound, and to look upon the case as one of ordinary intestinal obstruction. We determined, however, to dissect through it with a view to further exploration and perhaps its removal, when, on reaching the saphenic opening, I exposed the sac of a small enterocele just about to pass through that aperture, having, no doubt, been prevented from doing so by the enlarged gland which occupied that situation. The usual seat of stricture (Gimbernat's insertion) was divided, but not until some bands under the edge of the falciform process had been notched could the bowel be returned. The case eventually did well, recovery being slightly retarded by suppuration of the divided gland.

Remarks.—The points of practical importance in connexion with this case are: the occurrence of strangulation in hernia during or immediately succeeding a sharp attack of diarrhoea; that the character of the tumour should not deter us from operating: that if an enlarged gland should obtrude itself, it is desirable to ascertain what may be concealed beneath it; and that the division of Gimbernat's ligament is not always sufficient for the reduction of the hernia. I am aware that each and all of these points have been noticed and dwelt on by the authorities on the subject, and I am also certain that they are not seen in the common run of cases of strangulated hernia.—*The Lancet.*

CHARACTERS OF YELLOW FEVER THAT DISTINGUISH IT FROM MALARIAL FEVER.

By J. W. COMPTON, M.D., Evansville, Ind.

The prominent symptoms of yellow fever are thus condensed by Dr. Manning Simons, of Charleston, South Carolina:

"Onset with chill or sensations of chilliness, immediately followed by pain in the head, back, and limbs; rapidly rising fever of intense grade; red and injected watery eyes; sluggish capillary circulation; inward heat, pain, and tenderness on pressure over the epigastrium; irritable stomach; black vomit; albuminous urine; suppression of this secretion; hemorrhages, rapid course of the disease and the mahogany color of the skin."

Yellow fever very often makes its attacks after bed-time.

Malarial fevers usually make their attacks late in the forenoon or in the afternoon in daytime.

In yellow fever the intense pain is felt in the back part of the head and in the cerebro-spinal region.

The pain of malarial fever is usually in the front part of the brain.

In yellow fever the subsidence of the fever marks the termination of the attack.

The subsidence of malarial fever is only a rest, preparatory to a subsequent and more severe attack.

Periodicity is not a characteristic of yellow fever, though it is the essential diagnostic characteristic of malarial fever.

Attacks of yellow fever afford almost entire immunity from future attacks, while attacks of malarial fever increase the tendency to future attacks.

The preparations of cinchona have no specific controlling effects in yellow fever.

The preparations of cinchona have a universally acknowledged and marked controlling effect in malarial fevers.

Ulcerative and degenerative destruction of the mucous membranes and walls of the stomach is the frequent cause of death in yellow fever; such degenerative destruction of the stomach rarely if ever occurs in malarial fevers.

Black vomit is one of the ordinary occurrences in yellow fever, but it never or at least rarely occurs in malarial fever.

Yellow fever is essentially a disease of cities.

Malarial fever is usually found in the country in its severest forms.

The disease germs in yellow fever are transportable in clothing, goods, etc., and may be propagated therefrom and communicated.

The disease germ of malarial fever is never transported in clothing, goods, etc., and is never communicated or propagated in this manner.

Yellow fever essentially affects the stomach and arrests digestion and nutrition.

In malarial fever digestion is not so much impaired, persons often eating healthy meals during the intermission.

Heat, moisture and vegetable decomposition will not always produce yellow fever, though existing in the greatest abundance. Heat, moisture and vegetable decomposition will always produce malarial fever where it exists in great abundance.

The death rate of the two diseases have no parallel in comparison. Yellow fever kills a much larger proportion of those attacked, while malarial fever is one of our mildest and most easily managed forms of fever.

Yellow fever never rises spontaneously in our country, but must be propagated by imported contagion or infection, while it is a notoriously known fact that malarial fevers arise spontaneously in the vast territory where they exist, and are never propagated by imported contagion.

Yellow fever will not exist in a temperature below 70° Fahrenheit.

Malarial fevers will occur in even a very low temperature; the most difficult to control are those that occur in winter months.

Albuminous urine is invariably found in yellow fever, but is rarely or never found caused by malarial fever.

Yellow fever exhibits a yellowness of the skin, often approaching a deep mahogany color quite early in the disease, while pale yellowishness is only the result of chronic or protracted malarial fever.

In yellow fever there is no particular tendency to enlargement of the spleen, while there is a particular tendency to enlargement of that organ in malarial fever.

After exposure to the infection of yellow fever, the stage of incubation may often be as short as two days. After exposure to the malarial poison the stage of incubation is never so short as two days. The limits of the stage of incubation is

from two to sixteen days in yellow fever, but may be stated at as many weeks in malarial fever.

Suppression of the secretions particularly that of the kidneys, is a characteristic feature in yellow fever, but is not a characteristic feature in malarial fever.

Dr. Gaillard, of Louisville, Kentucky, to whose able pen I am indebted for much of the distinguishing features of these two very dissimilar diseases, says: "The great authorities in all civilized lands believe yellow fever and malarial fever to be essentially and totally different. While they believe the yellow fever poison to be essentially transportable and therefore communicable, for the communicability is the logical evidence of its transportability. The great writers and teachers warn all of the communicability of this terrible plague."

Watson believes the disease to be propagated by minute germs, and that there is in this disease an infection, though this is seldom diffused continuously over regions of great extent.

Aitken asserts that it can be transported, imported, and propagated, and should be defined as a specific malignant fever, of a continuous type, occurring as a rule but once during life and propagated by contagion.

Dr. Geo. B. Wood writes thus: "There can be but little doubt that the cause of yellow fever is specific and peculiar, as much so as smallpox, or scarlatina; the ferment or germ may be conveyed from one spot to another, and though perhaps not more than a mere point may poison the atmosphere of a whole city.

Dr. Gaillard further says that one of the most common facts in the medical literature of yellow fever is that vessels having yellow fever on board, run up to cities where the disease does not exist, where often the health of the population is unusually good, and where very soon after those sick with yellow fever are put ashore, the inhabitants are desolated, often decimated by this fatal plague. "Curious coincidences" these are termed by those who contend that the disease is of local origin. Curious indeed! Nearly every maritime city in the United States, and very many riparian cities furnish terrible illustrations of this demonstrable, this historic fact.

The day is near at hand when every physician, of logical mind, and average powers of apprehension, will admit and assert the fact that "yellow fever prevails in localities outside of its demonstrable habit or zone, only when it is carried there."

The theory held by Dr. Blackburn and others that yellow fever is liable to prevail in any populous part of the Ohio Valley, where the range of temperature is continually above 70° Fahrenheit, will, I am convinced be fearfully demonstrated.

It is true that single cases, unaccompanied by much clothing, baggage or goods from infected,

cities, may be placed in elevated positions, in thoroughly ventilated rooms of our hotels or hospitals, and not prove a source of infection or contagion.

Yellow fever only requires a nidus of peculiarly vitiated atmosphere, and a sufficiently high temperature for its germs to propagate and spread this fearful plague in places where it had not previously existed.

In support of this proposition, I will cite on authority of a gentleman from New Orleans, that the first cases that occurred this year in that city, were two persons who succeeded in running the quarantine and stopping in a part of the city infested by lagoons, emitting foul odors and greatly vitiating the atmosphere of that locality. History will write the terrible results.

The decomposition of a steamboat load of drowned cattle and the removal of the Red River raft or drift in which some of the carcasses had lodged, and the following desolation of the city of Shreveport.

The opening of an old sewer in the town of Grenada, Mis., and the subsequent sorrow of that disease-stricken people.

All of our cities have in or near their corporation, resulting from bad drainage or bad sanitary conditions, localities that would readily serve as the nest for the propagating of yellow fever germs from a single case, and multiply them sufficiently to infect the entire city should the greater portion even be in good sanitary condition.

The greatest care should be taken in regard to the location of any accidental case of this infectious fever, to the end that desolation may not be brought upon our citizens.—*Cincinnati Lancet and Clinic*.

ORIGIN AND TREATMENT OF EPITHELIOMA OF THE SKIN.—Busch (*Centralbl. f. Chir.* 1878, p. 174; from *Arch. f. Clin. Chir.*) suggests the following as the probable origin of epithelial cancer as it occurs in the skin. The first hypertrophic layers of epidermis which are formed after some irritation may probably prevent the newly-formed epithelial cells pushing up towards the surface, as in the normal condition they tend to do, and cause them to develop downwards. Relapses are to be explained in the same manner. Holding this view, Busch is accustomed, as soon as he sees signs of incipient epithelioma in the skin, to soften the upper layers of the epidermis by means of a weak soda solution. Ordinarily he uses this in the 1:100; when, however, the epithelial growth is unusually thick, Busch employs the solution in the strength of 1:40. After the growth is removed, its recurrence is prevented by applications of a half per cent. solution of soda. Busch has succeeded in removing epithelioma of the face by this

means even when an ulcer had already formed. The scar and surrounding tissue is to be bathed with the soda solution for some time after the sore is healed.

In addition, Busch recommends that those epithelial collections occasionally found on the nipples of old women should be removed by alkaline applications, and their return prevented by washing with the same from time to time. He thinks that these masses stop up the openings of the small glands and by their pressure upon the acini below favor the development of carcinoma.—*Med. Times*.

THE TREATMENT OF SUSPENDED ANIMATION.—At the request of the Royal Humane Society a committee of the Royal Medico-Chirurgical Society has been nominated to reinvestigate and report on the treatment of suspended animation, with especial reference to the method recently introduced into this country by Dr. B. Howard, of New York, and demonstrated by him at several of the hospitals and other public places. The members of the committee are Professors Lister, Burdon Sanderson, and Curnow, Drs. Sieveking, Laudor Brunton, Andrew, Ralfe, John Williams, and George Harley. Professor Curnow will act as secretary to the committee. The inquiry should, of course, include the three methods—those of Marshall Hall and Sylvester, and that suggested by Dr. Howard on equal terms and conditions of efficiency.—*The Lancet*

AN IMPROVED ANÆSTHETIC.—Dr. George Wachsmuth recommends (*Deutsche med. Wochenschrift*) for an easier, pleasanter and less dangerous anæsthesia, the addition to chloroform of one-fifth its bulk of ol. terebinth. The latter acts as a refrigerant to the lungs and thus prevents their paralysis, increases their capacity and volatilizes the chloroform, facilitating its diffusion. For the patient it is quite pleasant and for the physician, speedy and safe.

The *Medical Brief* says: It has been noticed in several cases that when one quarter of a grain of morphine would not produce sleep, if ten grains of quinine were administered a short time previous to administering the morphine, the morphine would almost invariably act efficiently. This fact was noticed in connection with puerperal cases.

ICE IN CHLOROFORM NARCOSIS.—According to Dr. Baillie, there is no more effectual remedy in chloroform narcosis than a piece of ice introduced into the rectum. A deep inspiration ensues, which is at once followed by the re-establishment of natural respiration and of the heart's action. The same is recommended in the apparent death of new-born infants. *Gaz. des Hop.*, March 23.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. McMILLAN, St. John, N.B.; C. W. BERNACKE, 271 W. 22nd St., New York; GEO. STREET & Co., 30 Cornhill, London; M. H. MAHLER, 16 Grange Batalliere, Paris.

TORONTO, OCT. 1, 1878.

TO ADVERTISERS AND OTHERS.—The CANADA LANCET has now been published about ten years, and has become the most popular, and also the largest and most widely circulated medical journal in Canada. It does not belong to any Medical School, or Society, and like the *London Lancet* after which it is patterned, is strictly *impersonal* in regard to its editorial management. It was projected in the interest of the medical profession and continues to maintain that position, and has come to be regarded as the recognized organ of the profession in Canada. A large number of new names have been added to the list of subscribers during the past year, and there are at present few active practitioners of note in the Dominion, whose names are not on the list. We desire especially to call the attention of advertisers to the fact, that the present issue of the LANCET is **3,000 COPIES!** Now is the time to advertise.

FEEDING OF INFANTS.

On no subject does greater ignorance prevail than the feeding of infants. From the moment of their birth, the anxiety of the mother or attendant females seems to be to keep the children stuffed, until they die and are carried to the tomb, or by reason of strength survive the swaddling period, and reach the age when regularity of meals becomes almost a forced certainty, by virtue of necessity, but certainly not of design. As a rule, during the first few months of a child's existence it is regularly stuffed, like a fowl being fed for the market, early and late, but the results are not the same, for while the fowl fattens, the over-tasked digestive organs of the child give way and diseased action ensues, eventually having a fatal termination;

hence we find that under one year of age the mortality is greatest, or about forty per cent. of the total mortality. After the first year the child has more time allowed it for digestion, and although it is exposed to greater dangers from other sources, yet a less proportion die. From five to ten years, when children get accustomed to something like regularity in meals, not exceeding three in the day, and have plenty of out-door exercise the mortality falls to 5.24 per cent. of total mortality, while from ten to twenty years of age very few die comparatively. In the face of these facts, all cry out about the alarming death rate among infants, and attribute it to bad drainage, etc., anything in fact, but the real cause which is unquestionably the stupidly homicidal system of dieting. For some reason or other, it does not seem to occur to the minds of those having the care of infants, that irregularity, or too great frequency in meals, is quite as likely to be productive of derangement of the digestive organs in the child as in the adult; or that the system of giving only three meals a day instead of perhaps a dozen, operates successfully in the case of domestic animals and their young, and no one frets about their being subjected to privation in consequence. A young pig, lamb, or calf, will thrive on three meals a day from its birth, and no such mortality rate is known among these. The same logic should hold good in the case of children as in animals; but no, a contrary course is pursued with opposite results. An able writer on this subject thus refers to the common plan of nursing infants. "Even before nature has supplied the food, before the mother's milk comes, the ignorant nurse doses the baby with sweetened water, or cow's milk and sweetened water. This results in stomach-ache, and the cries of pain being mistaken for cries of hunger, down goes another dose, until finally, when the mother's milk does come, the child's stomach is in a condition to revolt at anything. If, owing to a vigorous constitution, the little victim goes along for a few weeks or months, it is generally fed every hour or oftener, unless it happen to be, as is often the case, in a lethargic sleep for several hours, sleeping off a surfeit as an adult does a drunk." Now, if any intelligent person will watch this system of nursing, and observe how rarely a child is not either eating or vomiting from early to late, and how diligently the nurse plies it with food, regarding it as quite

natural that it should whinge, cry and vomit, eating and vomiting continually, he will be very dull of comprehension if he does not turn away convinced that it is nature revolting against an abuse, that it has no other means of resenting. Such treatment of a baby's stomach is simply barbarous, and those who inflict such punishment on infants, should themselves be condemned for a brief period to like treatment, if in no other way can they be taught its absurdity.

A stomach thus kept "full and distended" early and late, is apt to become, and does often become dyspeptic; every hiccough and every attack of vomiting being simply nature's effort to reject its overload. A baby does not require to be fed oftener than every four or six hours from birth. The mother's milk is its best food, being the very essence of food taken by the mother, and a child so nursed will thrive and sleep better than from any other management. If a child has hiccough or vomits after feeding, it has taken too much.

But the "infallible nurses of many years experience" who abound in the present day, filling the places that should be occupied by a better instructed class of women, possessing their diploma from some such school of nursing as has been inaugurated at the Toronto General Hospital, (but which should be made to extend in its training, not only to general sick-nursing but also to infant and ladies' nursing, and the general management of sick rooms) will not tolerate any undue interference with what they deem their special business, and plead that as babies cannot eat beefsteak and chops they should be fed oftener. If Foundling Hospitals and Infant Homes would rigidly adopt a more rational system of feeding, the high mortality rate at present experienced, and so much to be deplored, would soon disappear, always remembering that no system of artificial feeding can be as successful as the mother's nursing. By avoiding over-feeding and using only milk diet or mother's nurse, convulsions, diarrhoea, cholera-infantum, etc. etc. would be avoided, and the frightful mortality rate so prevalent among infants, the standing disgrace of the artificial civilization of the nineteenth century would be diminished. The large mortality rate among infants in cities like Montreal, Toronto, New York and London is undoubtedly due to ignorance upon the subject of nursing more than anything else.

NATIVE WINES.

We take great pleasure in calling the attention of the medical profession in Canada to the native wines produced by the "Canada Vine Growers' Association." Messrs. Cramp, Torrances & Co., through their energetic and courteous agent, Mr. James White, presented to the Medical Association, lately convened in Hamilton, samples of wines produced by the above company, which, as will be seen by the report of the Association in another column, were pronounced by good judges to be superior to anything ever produced in the Dominion, and equal to some of the best imported brands. This opinion is endorsed by a majority of the leading physicians and chemists in Toronto, and elsewhere. Their extensive vineyards are situated at Cooksville, Ont., and were planted some twenty years ago. The climate on the north shore of Lake Ontario is very similar to that of the river Rhine and its tributaries, where the finest light wines in the world are produced. In 1867 the Canada Vine Growers' Association were awarded a prize medal at the Paris World's Exhibition, being the only prize awarded to wine producers in America. Since that time their wines have greatly improved, owing to age and improved methods of production. Many physicians who do not use liquors in their practice, have recommended these wines to their patients as being free from adulteration, and containing less alcohol than most imported brands. We may add that these wines were awarded prize medals at the Centennial Exhibition in Philadelphia.

We herewith subjoin the following letters from Prof. Croft of University College, and Dr. Ellis of Trinity Medical School, Toronto, in reference to the pureness and good quality of these native wines.

Toronto, 5th July, 1878.

GENTLEMEN.—Some time since I received three samples of wines from your establishment, viz., Savigny, Sauterne and Madeira. They were all apparently quite pure wines as far as chemical tests could show the fact.

The first was a red and rather sweet wine, the others white wines of very good quality, equal in my opinion to many light wines of France and Germany. Some years ago I also examined some white brandy of your manufacture and found it exceedingly pure and well flavored, resembling the French White Cognac.

Your obedient servant,
H. H. CROFT.

Toronto, May 30th, 1878.

GENTLEMEN.—I have analyzed three samples of your wines, two white, and one red, and have much pleasure in stating that I believe them free from deleterious adulterations. To invalids and convalescents requiring a wine of moderate alcoholic strength, they will prove, I think, well adapted.

I am yours, etc.,

W. H. ELLIS, M.B., F.C.S.

The name of Messrs. Cramp, Torrance & Co., the proprietors, is a sufficient guarantee that their goods will not be allowed to deteriorate in quality, and that those doing business with them will receive honorable and honest treatment. We cordially recommend Mr. White and his wines to the profession and the general public.

THE "PECULIAR PEOPLE."

Members of our profession may not be generally aware of the existence of a sect of people, who persistently refuse to employ medical aid in sickness or accident, on grounds of solemn belief. Whatever excuse there may be for those who object to have their children vaccinated, there can be none, one would think, for those who persistently refuse to call in a physician or a surgeon in those cases in which their immediate presence is obviously necessary. Yet there is a sect in England (which has its representatives on this side of the Atlantic also) who call themselves the "Peculiar People," that invariably do so on alleged religious principles. Even if one of their children is dangerously ill of a disease which can only be treated with any hope of success by a competent medical man, or has broken a limb or otherwise suffered bodily injury, these "peculiar people" prefer to leave the unfortunate being entrusted to them to die, rather than have recourse to medical or surgical aid. They look upon it as a presumption or impious interference with the designs of Providence to employ any human skill, holding that, if it is the will of Heaven that the child should recover, its recovery will take place without such skill, whereas, if it is destined to die, no human care or science can be of avail. It is a strange superstition, founded on a too literal interpretation, or rather perversion, of the words of the Gospel about taking no care for the morrow. Such a case lately occurred in

Liverpool, but the circumstances were altogether so peculiar that the judge decided that the law could not be brought to bear on it, and advised the prosecution who had accused the parents of manslaughter to abandon it.

The absurdity to which human beings may be reduced by religious prejudices or whims are almost incredible, but the facts are beyond dispute.

DR. BENJAMIN WORKMAN.

Many of our readers will hear with deep regret of the death of Dr. Benjamin Workman, formerly assistant medical superintendent of the Toronto Lunatic Asylum. His death took place at the residence of his son-in-law, Dr. Bascom, of Uxbridge, from paralysis. He was born in 1794, near the town of Lisburn, Ireland, and was consequently in the 84th year of his age. He emigrated to this country with his father and brothers in 1819. For many years he resided in Montreal, and was one of the founders of the Union School, which, for twenty years was the largest English school in Canada. He was also Editor of the *Canadian Courant* for five years. In 1850 he entered upon the study of medicine, and commenced practice in 1853. Three years afterwards he received the appointment of assistant Medical Superintendent in the Toronto Asylum, where his brother Joseph was chief Superintendent—a position which he held until 1875, when he and his brother resigned. Since that time he has been residing in Uxbridge, where his death took place. His remains were brought to the residence of his brother in Toronto, and were thence escorted by his friends and confrères, to the Union Station, for Montreal, their last resting place. The deceased was universally beloved for his amiability, equanimity of temper and kindness of heart, and his loss will be deeply deplored not only by the profession of which he was an ornament, but by the public whom he served so faithfully for many long years, and a large circle of friends to whom he was greatly endeared.

WHAT IS THE STANDARD OF SANITY?—When we reflect that the greatest minds of almost every age have been arraigned before the bar of cotemporary public opinion for eccentricity, or at least wanderings in the border-land of insanity, not

excepting statesmen, philosophers, poets, theologians, even John the Baptist and the Saviour himself—although a people accustomed to the wise utterances of a Solomon, could say of Him, "He spake as never man spake"—it will be seen how difficult a matter it is to answer the query we have propounded. In this connection a singular decision has recently been given in the Philadelphia Courts by Judge Ludlow, who contended, in overruling the motion for a new trial for Sayres, the wife-murderer, that "All wicked persons are insane." This view does not go quite as far as that of another jurist, who held the theory that not only wicked persons, but all persons, are more or less insane; but it goes far enough possibly to stir up a controversy between the bar, the medical profession and the pulpit, each having its own peculiar views on the subject.

PUBLIC HEALTH.—We notice elsewhere, the report, recently printed, of the Public Health Committee of last session of the Ontario Legislature, from which it appears that the country is in anything but a good sanitary state, and is very liable at any time to be visited by epidemics of the worst type. It will in truth be little less than criminal, for those high in authority to delay taking some action with the view of improving the sanitary condition of the whole province, whereby many valuable lives may be saved, and much sickness and distress avoided. In our opinion the public health question is one of the first importance, and any effort made by the Legislature with the view of preventing disease, involving a moderate expenditure, will be well received and appreciated by all intelligent people. It is confidently hoped, that during the next session of the Legislature, an act will be passed for the better protection of public health.

MEDICAL SCHOOLS IN TORONTO.—We have received the annual announcements of the Medical Schools of Toronto, whose session for 1878-9 open on the 1st of Oct. The announcement is made that the Schools are constantly increasing in prosperity, a circumstance upon which we congratulate the respective faculties, the *personnel* of which is such as should afford the most ample guarantee of the exalted tone and thoroughness of the training which the student may expect to receive. The buildings are conveniently situated to the General Hospital, a fact worthy of consideration to the hard

worked student who finds it necessary to economize his moments as the miser does his cash, if he would be successful. A successful reunion with a large increase in the classes, is confidently looked forward to.

VERY SMALL.—In the annual announcement of the Toronto School of Medicine is published what purports to be the list of members of the Senate of Toronto University, and the schools and colleges affiliated therewith. In glancing over it we observe that while corrections have been made so as to make the list complete in every other respect, "Trinity Medical School" and her representative have been deliberately omitted. Although this will not affect the interests of the school in the slightest degree, it shows to what length a spirit of rivalry and petty jealousy will carry some people.

BRITISH MEDICAL ASSOCIATION.—The meeting of the British Association for the advancement of Science, was held this year in Dublin, under the Presidency of Dr. Spottiswoode. We have been favored by Dr. Tucker, of Pickering, with a paper containing the reports of some of the most prominent lectures, which we have read with interest, especially the addresses of Mr. Romanes, Dr. McDonnell and Prof. Huxley. The tendency amongst scientific men towards favoring the doctrine of evolution seems to be increasing. Romanes goes so far as almost to make the faculty of speech the distinguishing characteristic of *homo sapiens*, as compared with the most intelligent of the lower animals. There appears to be nothing very fresh in Huxley's address.

DIAGNOSIS OF PERICARDIAL EFFUSION.—Dr. T. M. Rotch, of Boston, (*Boston Medical & Surg. Journal*,) read a very interesting paper before the Massachusetts Medical Society, in June last, on the "Diagnosis of Pericardial Effusion." He pointed out the difficulties attending the diagnosis, the difference of opinion among writers, and concluded by stating, that in his opinion, absence of resonance in the fifth *right* intercostal space was diagnostic of pericardial effusion.

A RARE CHANCE.—An opening for a medical man of slender means in the State of Michigan. For address apply to the office of the CANADA LANCET.

A HALL FOR THE MEDICAL COUNCIL OF ONTARIO.—The committee appointed by the Medical Council at its last meeting to secure a permanent building for the use of the Council, has purchased the Bay Street Presbyterian Church, and will obtain possession of the same on the first of January, '79. In the mean time the vestry will be fitted up for a registration office. The amount paid for the property was \$13,000.

LIBRARY OF STANDARD MEDICAL WORKS.—Messrs. Wm. Wood & Co., of New York, announce that in January, 1879, they will begin the publication of medical books by standard authors, in monthly volumes of from 200 to 300 pages and upwards, well bound, at the merely nominal price of one dollar each. They will be sold by subscription only, at \$12 a year in advance. The vols. will not be sold separately—subscription must be for a complete year.

THE MICROPHONE IN SURGERY.—The latest achievement in advanced surgical science is the detection of the presence of a stone in the bladder, by means of the sound and a microphone attached. By this means the Hospital Surgeon, at the suggestion of Sir Henry Thompson, was able to demonstrate its presence to the class of students present.

PRIZE MEDAL.—The firm of W. R. Warner & Co. whose advertisement will be found in another column, has been awarded the highest prize at the Paris Exposition for sugar-coated pills. This makes the fifth prize awarded for superiority of manufacture.

CORONERS.—Henry Minshall, of the village of Brownsville, Esquire, M.D., to be an Associate Coroner in and for the County of Oxford.

Joseph C. Godin, of the City of Ottawa, Esquire, M.D., to be an Associate Coroner, in and for the County of Carleton.

SPECIMEN COPIES.—In future we must decline all requests for specimen copies, but shall be happy to give any person desiring it a trial subscription for *three months*, for 50 cents, payable in advance.

THE LEFT LEG is longer than the right in a large number of individuals; so say Frank Hamilton and others.

ADDRESS TO LORD DUFFERIN.

The following is a copy of the address presented to His Excellency Lord Dufferin, a few weeks ago in Quebec, by Drs. Grant and Brouse, on behalf of the Medical Council of Ontario, and his reply to the same:—

To His Excellency the Earl of Dufferin, K. P., K.C.B., Governor General of the Dominion of Canada, &c., &c.

We, the undersigned, the Council of the College of Physicians and Surgeons of Ontario, representing all the branches of the medical profession in the Province of Ontario, now assembled for our Annual Meeting, cannot separate without expressing our cordial participation in the general manifestation of regret felt from one end of the Dominion to the other at your Excellency's departure from Canada.

Every section of our community has its own special grounds for regretting your leaving us, Statesmen, to whatever party they might belong, have ever found in your Excellency an impartial, courteous, and earnest co-operator in every measure tending to the welfare of the country in which you represent our beloved Queen, and it will be hard indeed to find one more capable of upholding the high dignity and prerogative of the Crown, with an urbanity, winning all hearts, and at the same time fully recognizing the responsible Government established by our Constitution.

The education of our youth has ever been with your Excellency a subject of the warmest interest, and you have never omitted to take every opportunity of inculcating a few words of courteous and wholesome advice that must from their appropriateness have sunk deeply into the hearts of the hearers.

Artists know that in losing you, they are losing not only a liberal patron, but what they feel much more, a brother Artist of most distinguished ability. Sportsmen will miss the keen curler, skater and snow shoer; Canadian yachtsmen felt proud of having at their head the thorough yachtsman, who so gallantly led the Foam through the icy seas to Jan Meyer; all will have to wait long for one who will enter into our national sports with that zeal which your Excellency has ever shewn, and the lesson of manhood to our youth will not speedily be forgotten.

It remains for us as men of science, to shew our special title to join in the general sorrow. It is well known to us, though probably not to all, that among the accomplishments that so pre-eminently distinguish your well stored mind, a profound knowledge of the human frame has been a rare characteristic, and we naturally are gratified at the interest you take in that study, which is the peculiar business of our lives.

Coming as we do from the widely separated people of this province, and we may say from the firesides of its inhabitants, we are well able to testify that the farewell addresses your Excellency is receiving, are not mere words of form, but rise from the deep heart of a great community, deeply feeling the loss they are about to sustain, and we most cordially join in wishing that God may bless you and your amiable Countess, and grant you long life, happiness and prosperity.

We have the honor to be, &c., &c.

GENTLEMEN,

I need not assure you that I am very sensible of the honour conferred upon me by the address with which you have presented me from the Council of Physicians and Surgeons of Ontario.

From the days of Homer, the healing art has been justly considered one of the noblest pursuits to which the human intellect can devote itself. Its secrets were supposed to have reached mankind by direct inspiration from Heaven, and its first professor was the reputed son of a god. Ever since, the muse of history has endowed with deathless renown the names of those great benefactors of the human race, who, by their exceptional genius and skill, have succeeded in arresting the ravages of disease, or in mitigating the tortures which it occasions. Even in our own prosaic times, when the paths of distinction have become so multiplied and crowded, there is no career invested with a nobler prestige than that of the surgeon and physician, while so marvellous are the strides your art has made, that the achievements by which it has been recently signalized, would a few hundred years ago have been universally attributed to the direct inter-position of Providence.

I am proud to think that amongst my own ancestors I can point to a Regius Professor of Medicine in the University of Paris.

Holding then, gentlemen, the pursuit you follow

in such high estimation, you can well believe that I am extremely gratified by the flattering expressions of good-will and confidence you bring me from those whom you represent. Occupied as you are, in the absorbing pursuits of your profession, I could hardly have expected that my humble efforts to advance the interests of Canada should have attracted your attention, and still less, that you should have turned aside to honour me with these marks of your approbation.

Possessing as I do, so many personal friends amongst the most distinguished of the medical men of England, I am well aware of the high estimation in which many of the eminent names appended to your address are held at home. Already in your own researches, Dr. Grant, as well as in those of Dr. Campbell, and of many others, the Dominion has contributed her full quota of discovery to the scientific achievements of the age, and I make no doubt that the large field of observation compressed within our borders, varied as it is by so many peculiar ethnological, climatic, and material conditions, will afford you in the future, ever-widening opportunities of still further adding to the acknowledged reputation of our Canadian School of Medicine and Surgery.

I cannot conclude without expressing my appreciation of the lovely artistic designs with which your address is embellished.

Quebec, Sept. 10th, 1878.

Books and Pamphlets.

ON THE THERAPEUTIC FORCES. By Thos. J. Mays, M.D., pp. 143. Philadelphia: 1878, Lindsay & Blakiston. Toronto: Willing & Williamson.

This little work consists of seven chapters, and contains much matter for reflection. Chapter first is devoted to the subject of nutrition, in which the author endeavors to show that fats are more valuable as generators of force than the albuminoids. In the second chapter the author discusses in a general way the law of the action of forces on the animal body. The third chapter embraces chemical stimulants, hydro-carbons, phosphorus and oxygen. Chapter fourth, is devoted to a consideration of the bitter tonics, opium, ammonia, iodine, cold, &c. Chapter fifth, includes such remedies as antimony, croton oil, &c. The sixth

chapter treats of narcotics, and the seventh concludes with a *resume* of what has gone before.

The work, which on the whole is to be commended, contains many views which are peculiar, and which will not readily be adopted by the general reader.

L'AIMEE, OR "A FRIEND."—Amongst the interesting items of literary intelligence in Paris at the present time, it may be mentioned that Madame Durand, better known to the world of readers under the name of Henry Greville, has made a contract with Miss Helen Stanley, a correspondent of the New York Evening Post, whereby she will hereafter translate all of Henry Greville's novels from the original manuscript in French, into English, for their publication in America simultaneously with their appearance in Paris. By this arrangement they will retain all their flavor, Miss Stanley having both the ability and conscientiousness requisite for doing them justice. She has just finished translating "L'Aimee," or "A Friend," and the manuscript of it has been forwarded from Paris to T. B. Peterson & Brothers, Philadelphia, who will publish it in America.

The scene of the story of "L'Aimee," or "A Friend," is laid in Paris, at the present time, and shows eminently, Henry Greville's great talent for analyzing character. She draws her pictures in a way she possesses above all others, and this story of French home life in Paris will touch many hearts, as it shows how the love of a true and good woman will meet with its reward and triumph at the last. Had Henry Greville never written another work, this one alone would establish her fame.

REPORT OF THE SELECT COMMITTEE ON PUBLIC HEALTH LEGISLATION OF ONTARIO.

The report of the committee sets forth the fact which is well known to medical men, that a large proportion of the sickness in the Province is preventible, and that only comparatively inexpensive measures are necessary to effect a decided change for the better.

Foul air and impure water, inefficient drainage, and want of proper ventilation, are the principal causes of disease, and these ought not to be difficult to remove, with proper sanitary administration, which is much needed. The education of the public in the general laws of health, is deemed by

the committee, and rightly we think, to be of the first importance. It is to be hoped the Legislature will devise some measures by which this may be done.

"THE POPULAR SCIENCE MONTHLY" for October. This number opens with an illustrated popular article by Prof. J. S. Newberry, of Columbia College, on "The Geological History of New York Island and Harbor," and contains articles by Bain, Huxley, Spencer, Kirkwood, Brooks, and other eminent home and foreign writers.

AN ANIMATED MOLECULE, AND ITS NEAREST RELATIONS. By Daniel Clark, M.D. Medical Superintendent of the Asylum for the Insane, Toronto; late President of the College of Physicians and Surgeons, Ontario.

A short review of the above will appear in our next.

THE MORAL NATURE AND THE GREAT SYMPATHETIC. By R. M. Bucke, M.D., Superintendent, Asylum for Insane, London.

Notice in our next issue.

LADY DOCTORS.—London Med. Times and Gazette: It has been wickedly remarked that a lady who practices medicine commits two faults: she increases the number of doctors, and diminishes the number of women.

SUCCESSFUL OVARIOTOMY BY A FEMALE SURGEON. The first case of ovariectomy by a woman on the Pacific Coast has been lately performed in this city by Mrs. Charlotte B. Brown, M.D. It has proved an eminent success, and the patient has entirely recovered.—*Pacific Medical Journal*.

DIAGNOSIS OF PREGNANCY.—Dr. Goodell calls attention to the following sign of pregnancy:—"When the neck of the uterus appears to you as hard as the end of your nose, pregnancy should not exist; if it appear to you as soft as your lips, the uterus probably contains a fetus."

THE COLOR OF THE RETINA.—Probably the most interesting discovery of the past year in physiology is that made by Boll, that the retina possesses in health a peculiar red color, which is constantly being destroyed by the influence of light, and is as constantly being regenerated by the ordinary processes of nutrition. The "vision red" or "erythopsin," as its discoverer names it, attains its maximum after a night's rest and sleep, or when

an animal has been kept for some hours in darkness; it is soluble in solutions of the biliary acids and in glycerin, and probably plays a part in the production of the red reflection from the fundus of the eye seen on ophthalmoscopic examination, as well as, in all probability in the ordinary acts of vision.—*Med. & Surg. Reporter.*

A SUCCESSFUL OPERATION.—Surgeon A. L. Cox, who died at Chattanooga, was an eccentric and enthusiastic army surgeon in the late war. One day, soon after the battle of Antietam, he essayed to amputate the mangled limb of a Connecticut soldier, and became so much absorbed in his delicate task that he did not notice that the man was dying. As he began sewing up the stump a hospital steward chanced along and said: "Doctor, there's no use of going on; the man is dead." The surgeon looked up in surprise, and then said, "I am sorry that the poor fellow is dead, but there is one consolation about the matter, he has gone to heaven with a 'flap' that he can be proud of."—*Medical Record.*

COMPENSATION OF MEDICAL EXPERTS.—The Supreme Court of Indiana rendered a decision last month (February) of immeasurable importance, not only to the medical profession, but to the members of the other professions and callings. It was a test case, and is the first decision ever rendered on the subject by any court in this country, and, as far as we know, in any other country, and will be hailed all over the land as just and right. The particulars of the suit are briefly these: Dr. T. J. Dills and A. B. Buchman of Fort Wayne, Indiana, practicing physicians of reputation, were summoned by the defendant to give testimony as experts in a case of rape, State vs. Hamilton. They had no concern or interest in the case or man, and they refused to give the evidence unless they were properly compensated. The judge promptly ordered them to jail, and after they had exhausted every means to sustain the stand they had taken, they were forced to succumb and give the testimony, which they did under protest, and then they brought suit against the State. A decision was given in the lower court adverse to Drs. Dill and Buchman, but the Supreme Court of the State reversed the decision of the lower court and sustained the position taken by these physicians. The court "held that under the constitution the State has no right to take a man's particular services without compensation, and that the giving of expert medical testimony is a particular service within the meaning of the constitution."—*Kentucky Advocate.*

LITHOTRITY.—Three to five minutes is the limit usually prescribed in the operation of lithotripsy, but Prof. Bigelow, of Harvard, reports eight cases

in which the time varied from three-quarters of an hour to three hours and three-quarters. The danger to the bladder and urethra, Prof. Bigelow believes, is over-estimated, and he is convinced that it is advisable to protract an operation indefinitely, if the stone can be thus entirely removed. To facilitate the removal of the fragments, he employs an evacuating catheter of his own device, those now in use being worse than useless. This instrument is of full size, either straight or slightly curved towards the end, and has one opening of large size and situated at the side of the extremity: a rubber ball is attached to it by a length of rubber pipe, thus enabling us to syphon off the contents of the bladder. When the instrument is introduced it is directed against the floor of the bladder, forming a depression, care being taken to turn the eye of the catheter down. Water is now injected from the bulb; in a few minutes the crushed and pulverized fragments gravitate into the depression about the beak of the instrument, the bulb is lowered, and the contents of the bladder syphoned off. The great object is to sufficiently pulverize the stone and effectually evacuate the fragments, and it is for this that the lengthened sitting is required. Of the eight cases cited one died, but the results in the other seven were so favorable, that it is to be hoped this plan may be tested further. None but phosphatic stones were operated upon.—*American Journal of Medical Sciences*, January,

Births, Marriages, Deaths.

On the 12th ult., the wife of Dr. N. A. Powell, of Edgar, of a son.

On the 17th ult., Wm. Britton, Esq., M.D., to Mina, second daughter of F. A. Moore, Esq., all of Toronto.

On the 9th ult., Dr. Strangways, of Waldemar, to Miss Frances A., fifth daughter of Mr. Samuel Jessop of Cayuga.

On the 29th of June, Dr. J. P. Sivewright, of Chatham, to Ida Maria Earnest, of Toronto.

On the 24th of July, P. H. Spohn, M.D., of Penetanguishene, to Edith S., daughter of Mr. A. A. Thompson.

On the 24th of July, at South Marysburg, Wm. Minaker, M.B., L.R.C.P., to Esther M., only daughter of Isaac Striker, Esq.

At York Mills, John Myers, M.D., of Port Huron, Mich., to Amy, only daughter of Thomas Heath, Esq., York Mills.

At Picton, Ont., on the fifth of August, John Edward Rankin, M.D., in the 81st year of his age.

At Oakville, on the 23rd of August, David Dolmage Wright, M.D.

At Salisbury, N. B., on the 14th of May, E. Clawson, M.D.

THE CANADA LANCET,

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Original Communications.

HYSTERICAL RHYTHMICAL CHOREA.

BY C. W. COVERNTON, M.D., M.R.C.S. ENG., TORONTO.

(A paper read before the Toronto Medical Society).

In *Le Progres Medical* for February there appears a clinical lecture by Professor Charcot on a very interesting case of chorea, that he designates as Hysterical Rhythmical Chorea, or Chorea Major sive Germanorum, in distinction from the Chorea Minor of Sydenham. A translation of the case, I am informed, has appeared in the London *Lancet*, but as probably many of the members of the Society may have failed to notice it, and several of the features are of unusual occurrence and interest, I propose translating portions from the journal above mentioned. Before doing so, it may be right to remind you that the profession in the present day do not universally recognize the propriety of the division—chorea major, and minor—as only grades of the development of the same disease. Ziemssen, in an excellent article on the subject in his "Cyclopædia, says, "it is my conviction that the group of symptoms called chorea major is not a disease *sui generis*, but is only the product of genuine psychoses and cerebral maladies on the one hand, and of hysteria and wilful simulation on the other, such as so often and so abundantly flourish in hysterical ground at the period of puberty." That proteus hysteria, which is described under the name of chorea magna, contains in reality but one characteristic mark, and that is the associated spasmodic movements which are often performed with a certain fitness, but usually have an extravagant and violent character. But we have the same right to count all the associated spasms of hysterical patients as chorea major; the spasms of single extremities as well as those of the whole body, those of the muscles of respiration, as well

as those of the larynx. By the same right, also, all those striking forms of associated spasm which are observed in insanity, epilepsy, cases of cerebral tumor, etc., must be added to the species chorea major. Ziemssen further remarks, that he does not consider it as justifiable, to select a single group of symptoms from diseases of such varied character, solely on account of its striking nature, and instances cases from his own practice in support of his views. I find also a case reported in the *Medico-Chirurgical Review* for 1846, by an Italian physician, Dr. Dubini, where the same muscles are always the seat of the convulsive movements which are generally also limited to one side of the body, and that the right side; the convulsions becoming more incessant as the derangement advanced, invading sometimes the other half of the body. In the Asylum for the Insane at Hamilton, there is a patient transferred there from either Toronto or London, I do not know which, who for years from early morn to night, rotates the head and body backwards and forwards like a pendulum; which case probably might with as much propriety be viewed as the result of insanity controlling the will of the patient, as of the psychical disorder named chorea magna. On referring to Trousseau's clinical lectures, I find that he agrees with Professor Charcot in recognizing a distinction between the minor and major forms of chorea, the latter having little in common with St. Vitus' dance, and therefore is in his judgment correctly named hysterical chorea. I translate one out of many cases that he adduces in support of his view. In vol. 2, p. 262, I find the last of the cases cited in illustration of the difference that he conceives to exist between the prodroma of the dance of St. Guy and hysterical chorea. Cases showing that, however powerless may be the will to prevent the disorderly contraction of the muscles, it still retains over these muscles consentaneous action and compels their execution with a certain amount of regularity and harmony. If the patient advances, it may be, it is true, by jumps, but she follows without deviation the course she has laid out. If she wishes to carry her hand in this or that direction, although her arm may be agitated by convulsive movements, she arrives without trouble and speedily, at the end that she wishes to attain. If she seeks to lay hold of an object, she succeeds at the first effort, without failure. Once the object is seized she does

not drop it, and can carry it, or place it here or there as may suit her inclination. The following is the last illustrative case :—"I was called in consultation by my colleague and friend, Dr. Horteloup, to a young lady nineteen years of age, belonging to a family of distinction. This young person, who had received a superior education, entertained sentiments of high morality and enlightened religious belief without affectation or pretence, possessed, in a word, of a well-balanced mind; and these intellectual and moral endowments were such that with her it was impossible to suspect any kind of trickery, or pretence, by the aid of which hysterical patients, one does not know why, appear to wish to impose upon those surrounding them and upon physicians themselves, when they can. This young lady had lost, eight or ten months before, her sister, to whom she was united by the most ardent ties of affection. Her grief was the more profound, that independent of the blow she herself experienced, she felt deeply her mother's bereavement. From that time she had been seized with grotesque convulsive movements of the head, and superior limbs; nevertheless, when she came to Paris to consult Dr. Horteloup who had previously attended her, her melancholy appeared a little less gloomy, her natural vivacity in a measure resumed its wont, and she allowed herself to be diverted willingly from her painful thoughts. I found her with all the appearance of good health; but her entire left side was agitated by violent choreic movements, to such an extent that there was reason to fear that she would injure herself by falling against the furniture or the walls of the room. If an attempt was made to arrest these movements, for instance by taking her hand, not only they were not arrested, but increased, and occasioned her a painful sensation, a state of general *malaise* of the most painful kind. There was however one method of calming as if by enchantment this muscular agitation, it was to lead the young lady to the piano; she could there remain one or two hours playing as correctly and as regularly as possible without losing the measure or missing a single note. Before us she executed with marvellous facility a most difficult piece, and this fact alone, without considering others, gave me sufficient proof that this form of chorea had nothing in common with the dance of St. Vitus." You will readily admit, gentlemen, that this view

of the profound thinker and most careful discriminator, Trousseau, is not lightly to be considered; but may we not fairly group among the factors in this case morbid thought, emotional exaltation, and excitement of ganglionic nerve centres? The question however arises, is Professor Ziemssen strictly correct in associating wilful simulation with hysteria? That it is a frequent concomitant there can be no doubt, but is there not a little doubt that frequently it is a functional disturbance of the nervous system attended with hallucinations in the sensory, and convulsions in the motor tract, quite independent of all simulation? That it is, as described by Professor Jolly of Heidelberg, a general neurosis of the brain and spinal cord, and with much probability of the peripheral and sympathetic nervous system, having among its most important primary factors hereditary liability, a certain psychical constitution with a tendency to powerful and changeful emotions, and little strength of will, and primary anæmia. Chief among the secondary causes, is faulty education. Hysterical mothers transmit not only the seeds of disease to their children, but also favor its development by education and their own example; the whole mode of feeling and thought transferring itself from continued intercourse. As in children, so also sometimes in nurses who have for a long time attended hysterical patients, this so-called imitative infection is operative; or in other patients, who have been nursed beside such; and above all, in people who have been the accidental witnesses of an hysterical attack. This sort of infection, however, is only operative in such individuals as are already predisposed to hysteria. The older pathologists trace a close relationship in chorea to rheumatism and endocarditis, and but a small minority to traces of lesion of nervous system. English pathologists attach less importance to rheumatism than to endocarditis, and its sequelæ, *i. e.*, vegetations principally in mitral valve, occasionally in aortic. Drs. Ogle and Pye Smith give a number of cases illustrating these lesions. Kirkes considers that endocarditis is the cause of the chorea through the inflammatory products of the valves, which become mixed with the blood and disturb the functions of the nervous centres. Broadbent considers from numerous autopsies, that the corpus striatum and thalamus opticus are the locations of choreic irritation, particularly capillary embolism of these portions of the brain. Tuck-

well reports the autopsy of a girl aged thirteen in whom chorea developed after rheumatic fever, at which was found softening of the right middle cerebral lobe and to a less extent of the left, without demonstrable embolism. On the auricular surface of the mitral valve there were numerous fine warty vegetations; in the kidneys three arterial twigs, plugged with emboli. Dr. Gray reports a case of acute chorea with embolic thrombosis of basilar artery, both vertebrals, and both middle cerebrals, with softening of anterior and middle cerebral lobes, and dorsal part of the cord. Dr. Fox, in a case of acute chorea, reports microscopic embolism of corpus striatum and small vegetations on mitral valve. Ziemssen also cites a number of German authorities in favor of the cerebral nature of chorea. Of especial significance are the frequency with which choreic symptoms are unilateral, sometimes in association with anæsthesia of the skin, and the transition from hemichorea to hemiplegia, and the converse process of the development of hemichorea from unilateral palsy, as related by Charcot, Foote, Weir Mitchell, Hughlings Jackson and others. In hysteria, on the contrary, changes in the central nervous system have failed to be discovered. The cases of M. Charcot, in which after long continued hysterical contractions, sclerosis of the lateral columns of the spinal cord was found, are viewed by Jolly as accidental complications, rather than as causative elements. One of the most interesting features in the case lectured on by M. Charcot in his clinic, portions of which lecture I now propose translating, was the circumstance of the immediate arrest of the rhythmical movements of the trunk and limbs by firm pressure over the right ovarian region. In obscure cases of this kind may we not look to local affections of nerves as causative influences? Lobstein thought he had ascertained the existence of inflammation of the great sympathetic, and to this source he refers many obscure diseases, such as violent hysterical affections; and Abercromby in his classical work on diseases of the brain, remarks, "We must forbear to speculate where we have not facts before us, but it appears extremely probable that there are diseases of internal nerves which may be the source of important morbid phenomena." I am fully aware, Mr. President, that it is a very difficult problem to distinguish between the phenomena of purely reflex action and those resulting from incipient structural lesion;

and it is only to careful clinical observation that we can look for a discovery of the original seat of the irritation. In Charcot's case the right ovary was evidently the source of the choreic movements, certainly at least, a subsidiary factor, and the progress towards recovery at the time of the delivery of the lecture, had been expedited by alternate inhalations of ether and nitrite of amyl. In *Le Lyon Médical* for November, 1876, there is to be found another interesting case of reflex spinal irritation. The patient had been long treated for severe paroxysmal cough without success, the paroxysms ceasing only on lying down. An examination revealed an inverted and enlarged uterus. This organ was replaced, and kept *in situ* by a pessary, when the cough ceased at once. On removal of the pessary the cough returned, and continued until the pessary was re-applied. When we remember the intimate connection between the ganglionic and cerebro-spinal system of nerves; the third encephalic, with the ophthalmic ganglion; the fifth, with the sphenopalatine and otic; and the sixth, as also the eighth and ninth on their exit from the cranium, with the superior cervical ganglion; the fifth, sixth and seventh cervical nerves and first dorsal, with the inferior cervical ganglion; the thoracic portion of the sympathetic forming the greater and lesser splanchnic; the semi-lunar ganglion forming plexuses with the abdominal viscera, and in the ganglion *impar*, resulting in pelvic plexuses; nervous centres, to, and from which, nerves proceed; that in nearly every part, two kinds of fibres exist, the gelatinous and the tubular, the tubular derived from the cerebro-spinal centre, the gelatinous from the ganglion, need we be surprised in the face of such inter-penetration, and intimate co-relation, at the influence of the will, and of the passions of the mind, on the various involuntary functions; or that in chorea, hysteria and diseases where disordered nervous actions occur, reflex irritation may be viewed as a frequent factor of the trouble. The mind concentrated upon organs suffering from certain feelings of tension, and uneasiness, caused possibly by some changes of circulation, the strange anomalous symptoms result; the exact *quo modo*, I apprehend, we are no more likely to determine than the way in which the nerves act on the capillaries of the cheek, in the paleness of fear, or the blush of shame. Dr. Marshall Hall, in his work on the pathology of the

nervous system, recommends that in all investigations we should divide the enquiries into the cerebral, the true spinal, and the ganglionic. Enquire—What is the influence of disease of one of these systems, or the other two respectively? In what order is that influence manifested? What are the effects of irritation, counter-irritation, of pressure and of counter-pressure in diseases within the cranium or spinal canal? Why with similar symptoms have we dissimilar morbid appearances? Dr. Marshall Hall treats these various subjects with his usual ability and ingenuity, but I think in the minds of a generality of his readers the question, after a perusal of his arguments, will still return: given any set of symptoms, what is the lesion? Take for example of ambiguity of symptoms, spinal irritation. There is hardly a single disease in the whole category of ailments which may not be more or less accurately simulated by it, and yet in a large proportion of cases the patient makes no complaint of uneasiness in the region of the spine. Dr. McCall Anderson, of the University of Glasgow, in his lectures on clinical medicine, gives cases of simulated diseases of the heart, of the liver, of spasmodic stricture of the œsophagus, of hysteria, of synchronous choreic movements somewhat analogous to Professor Charcot's case, all of which were relieved by treatment for spinal irritation. This protean form of disease, although occasionally met with in men, is principally a disease of women—debilitated, nervous subjects. According to Brown, the immediate cause is spasm of one or other of the muscles arranged along the spine, altering the position of the vertebræ, or otherwise compressing the nerves as they issue from the spinal marrow. Teale on the other hand attributes it to congestion, which by continuance and repetition may so far impair the tone of the capillaries as to produce a state of actual inflammation; while Radcliffe seems of the opinion that the opposite condition, viz., capillary contraction and bloodlessness, is nearer the truth. To this confusion in etiology the line of the Poet Laureate may be applied:

“Not like in like, but like in difference.”

Notwithstanding the widely divergent opinions on the *quo modo*, the fact is well established that certain diseases, as hydrocephalus, epilepsy, hysteria and chorea, not only induce augmented excitability,

but manifest their effects precisely upon the organs which are physiologically under the influence and dominion of the excito-motory power. Dr. Budd, in a paper on the pathology of the nervous system, remarks that in many cases of violent reflex, and even convulsive actions, there is no sense of fatigue and little emaciation of the muscles, as fatigue is a cerebral state, and cannot be expected to occur in cases in which the reflex actions are most observed; and emaciation is most obvious in spinal paralysis in which the reflexed arcs being interrupted, the reflex actions are also precluded from taking place. With a brief notice, Mr. President, of Dr. Althaus' views of chorea, as expressed in a recent work, I will no longer monopolize time, that should be equally divided with members of our Society purposing to read papers. Dr. Althaus believes that the embolic theory of chorea is as yet unproven, and that it utterly fails to explain those cases in which the symptoms of the disease supervene after fright or other mental emotions. He does not even consider the presence of a murmur as a positive indication of the existence of endocarditis, as it may be due either to anæmia or to irregular action of cardiac muscles. That it is sometimes owing to hyperæmia of the region of the middle cerebral and of the corpora striata. I think, gentlemen, from the opinions quoted from the writings of the most eminent writers on the pathology of the nervous system, you will arrive at the conclusion that these painful nervous affections are much more frequently the result of functional derangement of cerebro-spinal and ganglionic system of nerves, than from particular structural lesions of either. That in the psychical, motor and sensory varieties of hysteria, and in the most aggravated forms of chorea, the danger to life is almost *nil*, and that in those cases where post-mortem examinations reveal structural changes, it may fairly be frequently viewed as an open question whether these structural changes were strictly causative, or merely coincident.

EXPULSION OF AN INTRA-UTERINE FIBROID TUMOR.

BY H. BREDIN, M.D., MILFORD, ONT.

Mrs. McK. aged 47; mother of nine children, the youngest of which is now 8 years old, first noticed derangement and irregularity of menstua-

tion, in the Autumn of 1873. A sanguineous discharge made its appearance every two or three weeks for a time, and then continued to increase in frequency, until the Fall of 1874, when hemorrhage came on every few days, and in spite of the usual treatment with tonics, stimulants, and astringents, accompanied by elevation of the hips, &c., the patient rapidly became worse. Fearing the existence of some exciting cause of the hemorrhage, I thoroughly explored the vagina with a bladed speculum, but made no discovery whatever, except that the parts exposed to view were healthy, and that there was no dilatation of the os uteri. I then resorted to the use of ergot, giving 8 drops of the fluid extract every 4 hours, during that day and night, hoping that the hemorrhage might thereby be arrested. Disappointment meeting me at every turn, I asked for a consultation. Dr. Morden arrived early in the morning. After making a digital examination *per vaginam*, he requested me to do the same. I did so and found the os largely dilated and some body having the feel and consistency of a tumor presenting. After a few moments' consultation we decided that the case was one of intro-uterine fibroid tumor. We at once proceeded to pass a ligature about the tumor, but our most persistent efforts failed on account of the rigidity of the os, the powerful contractions of the uterus when manipulating, and the shape and attachment of the tumor itself—the neck being very large and attached to the fundus. Dr. Morden prescribed cannabis indica, which arrested the flow and caused the tumor to recede slightly. Matters remained in about the same condition until March of the present year, when hemorrhage came on again in a more violent form than ever before—completely blanching the patient. The tumor increased in dimensions very rapidly until June 13th, when Dr. Evans of Kingston, Dr. Morden and myself, met in consultation and adopted a line of treatment, consisting of tonics, and the application to the protruding portion of the tumor of a tampon, saturated with a solution of perchloride of iron—the tampon being introduced through a glass speculum. Our object was to arrest hemorrhage and produce atrophy. This treatment was faithfully carried out until the 23rd, when the flowing returned to an alarming extent. On my arrival at the house of the patient, I immediately prepared a solution of the perchloride of iron, and by the use of a female

catheter succeeded in injecting a portion between the tumor and the walls of the uterus. This arrested the flow at once; I then returned to the tampon and pursued the line of treatment already described, until the 28th, when the patient and her family became completely discouraged and gave up all treatment. Apparently in despair she asked me why we could not give the medicine which we used at first, "or that which forced the tumor so;" I replied that I would give it provided she and the family would assume the responsibility. They at once consented and I put her upon 20 minim doses of the fluid extract of ergot every four hours.

July 1st. But slight pain yet; tumor coming down; lips of the os very rigid; vomiting every hour.

July 2nd. Not much pain till afternoon; vomiting continues. Steady bearing down; not satisfied with dose, asked for more medicine. Treatment to be continued.

July 3rd. Made infusion of pulv. ergotæ ʒiii, hot water ʒiv, and administered a tablespoonful every hour, gradually increasing it to two tablespoonfuls. I then made an examination of the tumor and discovered that it was becoming dark in appearance.

July 4th. Vomiting, pain and bearing down all day.

July 5th. Pain and bearing down continues, os becoming soft and dilating.

July 6th. Tumor becoming foetid at anterior surface.

July 7th. Symptoms of peritonitis all day. Gave one grain of pulv. opii every 4 hours, and applied hot fomentations to the abdomen. Removed a portion of the anterior surface of the tumor with the thumb and finger and broke down the attachment above the posterior lip. I then passed my hand to the body and fundus where I found it adherent to the extent of about 3 inches to the posterior wall, but was afraid to separate the adhesion.

July 8th. Having prepared a solution of perchloride of iron and some brandy and ammonia, I placed the patient upon the table and introduced my hand into the vagina, and passing it up to the attachment of the tumor, proceeded to break down the adhesion with the finger. Finding a firm ropy adhesion, I seized it with the thumb and finger in search of an artery. Finding none I

broke it off. Being satisfied that all was separated, with the aid of a pair of bullet forceps, I succeeded in grasping it and bringing it away. The tumor was about the size of a child's head at 8 months. I then injected the perchloride and put the patient in bed. Heavy chills with oppression about the heart followed; ordered bottles of hot water to the feet; hot fomentations to the bowels; and gave some brandy and ammonia internally. After reaction came on, I gave a teaspoonful of infusion of ergot and repeated it in half an hour; also ordered a weak solution of carbolic acid as an injection twice a day. At Dr. Morden's suggestion, I subsequently used permanganate of potash as an injection with the most beneficial effects. She is now taking citrate of iron and quinine, and is doing well.

The above case shows the beneficial effects of the combined local application of perchloride of iron, and the internal administration of ergot in the removal of fibroid growths.

The continued administration of the ergot not only reduced the size of the tumor to some extent, but also brought it within the reach of manual interference, and the woman delivered from her perilous situation. The patient is now well and strong, without any symptoms of the return of the disease.

TRANSLATIONS FROM FOREIGN JOURNALS.

(From Le Progres Medical.)

BY C. W. COVERNTON, M.D., M.R.C.S., ENG. TORONTO.

PRESENCE OF LYMPHATIC GANGLIONS BETWEEN THE BLADDER AND RECTUM—TUBERCULOUS ENGORGEMENT OF THESE GANGLIONS.

M. Lannelongue, presented (Surgical Society Sept. 17th), a pathological preparation from a young child who had succumbed under treatment for tuberculization of the urinary passages. At the commencement the child manifested only acute pain in urinating. The exploration of the bladder made on two occasions, evidenced satisfactorily that there was no question of calculus. By the rectal touch, there was only to be recognized at the level of the prostate, a soft and fluctuating tumor, which was nothing else than a tuberculous

abscess surrounding the neck of the bladder. The child died with all the accompaniments of a purulent cystitis, and a consecutive nephritis. At the autopsy, there was found in the prostatic region of the urethra, an anfractuose cavity covered with tuberculous products, and in size, capable of admitting a small nut. The kidneys had been equally infiltrated with caseous deposits. But the most interesting lesson consisted in the presence of seven cores, or nodes, having each the volume of a shrivelled pea, and situated in the connective tissue, which separates the rectum from the base of the bladder. One of these cores corresponded exactly with the embouchure—or mouth of the ureter. Histological examination proved that these cores were veritable lymphatic ganglions, become caseous. M. Lannelongue has made other researches on this point of anatomy, and in the case of another child who had no lesion of the urinary passages, he found also six ganglions, situated between the bladder and the rectum. M. Lannelongue, considered the presence of these ganglions could easily explain the formation of certain abscesses in the superior pelvi-rectal space. An excoriation of the mucous membrane of the bladder, or a lesion of the urinary passages, would provoke adenitis in these ganglions; this would terminate in suppuration, extending to the cellular tissue of the neighborhood. M. Duplay, confirmed the anatomical ideas that M. Lannelongue had expressed. In his dissections he had often met ganglions situated in front of the anterior face of the rectum. M. Lucus Championniere remarked that the new facts communicated by M. Lannelongue, resembled those that he had observed in the arrangement of the uterine lymphatics, and of the ganglions of the broad ligaments. These ganglions only become apparent to the anatomist when the lymphatic plexus of the uterine mucous membrane is diseased. It is in these cases that pathology comes in as an aid to the study of Anatomy. M. Després, has observed daily an abscess of the superior pelvi-rectal space, in the case of a robust patient. After attentive observation he remains persuaded that this abscess had for its cause adenitis. The patient presented as the first symptom, retention of urine. M. Després, rather ridiculed the doctrine of Dolbeau, who taught at the Faculty that nine times in ten, abscesses are consecutive on lymphaginitis.

HYGIENE DAS ESCOLAS.

By JOSEPH WORKMAN, M. D., TORONTO.

Under the above heading, (hygiene of schools,) the "*Gazeta Medica da Bahia*," has presented a series of very valuable articles, the whole of which we might very profitably to our own educationists and their pupils, reproduce did the due apportionment of our space permit.

We must confine our present notice to a few extracts from the final article which we find in the July number of the *Gazeta*, in which the subject of *Myopia*, as a very prevalent ophthalmic affection in the schools of Europe and the United States, is well illustrated by statistics furnished by various eminent authorities.

No person who has resided in our City for any lengthened period, can have failed to note the unpleasant fact, that it is hardly possible to walk a hundred yards, along any of our principal thoroughfares, without meeting one or more young persons, mounting either spectacles, or some other form of eye-helpers; and any one who can look back 40 or 50 years, must be struck with the contrast in this relation, between the present time, and the era when common and superior schools were few and far between. We translate the following extracts from the Portuguese:—

"In Germany, Austria, Switzerland, the United States, France, and even Russia, ophthalmologists have taken under serious consideration the study of the causes which contribute to the production of myopia in schools. Hermann Cohn, is one of the investigators, who has most distinguished himself in this difficult and patience-demanding study. In 1866 he examined at Breslau 7,568 children in the various schools, and he found among them 683 *myopes*, or 9 per cent. Comparing the number of *myopes* of different classes, he found that the proportion augmented from the lower to the higher classes of the scholars. Thus, in the elementary schools of the city, the proportion of the former to the latter was as 2 to 8 and 9 per cent. In 1865 he extended his investigations to 10,000 children, and found in the elementary schools in the city, 6 per cent of *myopes* among the males; in the intermediate schools 9.9 per cent.; and in the gynasiums and superior schools, 23 per cent. Erismann in 1871, wrote the history of the development of myopia in St. Petersburg,

based on an examination of 4,358 students of both sexes. Among these there were, in the male sex 31.1 per cent of *myopes*, and in the female sex 27.5 per cent. The inferior class presented 13.6 per cent, and to this succeeded 7 classes, in which the number of *myopes* augmented in ascending progression, reaching in the highest class 42.8 per cent.

Von Reus, at Vienna, in 1872 and 1873, examined 818 students of diverse schools, and verified the fact that the number of *myopes* augmented from the inferior to the superior classes, from 28 to 48 per cent. Hugo V. Hoffman, proceeded in Vienna, in 1873, in the same investigations, and found in the elementary schools, in 568 children, 67 *myopes*, or 12 per cent; in the superior schools, in 403 children, 83 *myopes*, or 20 per cent; in the gymnasium, in 256, he found 97, or 37.9 per cent.

In Friedreich's gymnasium, at Breslau, Cohn also found a progressive augmentation, in the number of *myopes*, from the inferior to the superior classes, from 12 up to 60 per cent; and always, the higher the class, the higher was the grade of the myopia. Ott and Ritzgmann, in 1874, examined 122 students of the gymnasiums of Schaffhausen, and found the following results:—*Myopia fortis* (to $\frac{1}{10}$), 5 per cent in the inferior classes; 27.5 in the median, and 67.5 in the superior. *Myopia moderata*, (from $\frac{1}{8}$ to $\frac{3}{8}$) 29.4 per cent in the inferior classes; 58.8 in the median; 11.8 in the superior. Maklakoff, in Russia, found 24.4 per cent of *myopes* in the inferior class of schools, and 43.5 in the superior. Schultz, in the gymnasium of Upsala, in 431 students found 36.1 per cent of *myopes*. The proportion in the inferior class was 14 per cent, and it ascended to 54 per cent in the superior; the grade of myopia was most strong in the superior classes. Kruger, in the gymnasium of Frankfort, found that the proportion of *myopes* rose from 4 in the inferior, to 64.5 in the superior class; and the grade of myopia also augmented from the first to the highest class.

In the United States, the investigations have given results no less conclusive. In Cincinnati, New York, and Brooklyn, the eyes of 1,440 pupils were examined by Drs. Williams, West, Cheatham, Matthewson and Prout. In Cincinnati, in the primary, intermediate, normal and superior schools, 630 were examined. In the primary, in 209, 10

per cent were *myopes*; in the intermediate, in 210 there were 14 per cent; and in the superior, the proportion was 16 per cent. In the New York College, 29 per cent in the inferior, and in the superior, 53 per cent were *myopes*."

The writer then proceeds to state that in South America, the number of short-sighted children is also great, and he points out some defective arrangements, as to the quality and quantity of light afforded to scholars, the unsuitable construction of desks, and seats, inadequate ventilation, &c., &c.

We were fully prepared to learn that impaired eyesight is a very common trouble in Germany, and other countries in which books continue to be printed in the old barbarous gothic type. No one who has ever striven to become acquainted with the German language, and has been obliged to read it by gas or candle light, will question the fact, that it is very severe on the eyes. Some years ago, we were well acquainted with a very amiable and studious Lutheran clergyman, whose eyesight utterly failed him prematurely. He admitted that he read much after night; but he was too ardent a lover of fatherland, to lay the blame to the real cause of his affliction. It is truly marvellous that a people so strongly characterised by good sense and superior culture, should stupidly persist in the retention of an antiquated and hideous alphabet, which almost practically shuts them out, or rather shuts them in, from easy literary intercourse with other civilized nations. Perhaps, by the time that nine-tenths of them become short-sighted, they will begin to gather common sense, and permit their children to learn to read at less cost than the early ruin of their eyes.

CASES IN HOSPITAL PRACTICE.

By THEOPHILUS MACK, M.D., ST. CATHARINES.

(Reported by F. S. Greenwood, M.D., House Surgeon.)

At a meeting of the "Medical Society for Mutual Improvement," St. Catharines, held at the rooms of the Society, on September 3rd, the following cases were submitted:

Dr. Mack reported an instance of death from

URÆMIA,

which appeared to him of extreme interest.

A lady was placed under his care with this history. Eight years previously when residing in Western Virginia, under severe mental affliction, she suffered from puerperal convulsions and miscarried at the end of eight months; after recovery she remained some time pallid and anasarous with urine albuminous. After a years treatment she recovered perfectly, but with a floating kidney of the right side. She afterwards occasionally suffered from hæmaturia, malarial neuralgia and uterine congestion. She was 40; had not menstruated for two years. Her physician Dr. Mayer of Wilkesbarre, had treated her case throughout with remarkable skill and judgment. Her complexion was of a deep bronze hue, hearts action feeble; œdema of face, palpitation and dyspnoea; veins varicose in lower extremities, complains of debility; tissues evidently wasting; vision impaired; discolored patches of skin; white adnata; but little doubt could exist of the case being one of morbus Addisonii. The right kidney could be easily felt detached as a circumscribed mass in the abdomen; slight disturbance of intellect from cerebral hyperæmia. She states that while travelling in Palestine some years before, she fell from a camel's back, and believes that she was much injured thereby; has resided chiefly in malarial regions. A few days afterward, I was summoned in haste to find her in epileptic convulsions; the first seizure in a few hours was followed by another, and so on until coma, and death closed the condition of the sufferer. A post mortem examination was made at her former residence with the following results, which were communicated to me by Dr. Mayer.

"As time was rather pressing, I did not examine the brain, convinced as I was that the brain symptoms were merely secondary and the result of uræmic poisoning; nor did I open the thorax, as I had every reason to believe its contents to be organically normal. The liver was not enlarged, not organically changed, but simply engorged. The gall bladder and its ducts, normal; the spleen of even less than the usual size, and unaltered in texture. The stomach and intestines presented no unusual appearance, and the uterus and ovaries were small and not diseased. The same may be said of the bladder, the coats of which were not even thickened. The right kidney—the so-called floating one, was firmly fixed in its abnormal

position by peritoneal bands, the ureters and the blood vessels enlarged, and its whole structure with that of its supra-renal capsule, so altered as not to be recognisable. The mass was $8\frac{1}{2}$ inches long by 5 broad, and about $3\frac{1}{2}$ thick, weighed 2 lbs. and 2 ozs. avoirdupois, and looked like a huge bunch of California grapes, being covered in every direction by reddish or purple cysts. These contained a dirty albuminous liquid; some of them weighed two ounces, some a few drachms. Upon section, a slight rim of true cortical substance was found around a portion of the pelvis, half an inch in width, and the remaining structure of the mass consisted of cysts, similar to those seen externally. The connective and fibrous tissues seemed to be destroyed, and it was almost impossible to distinguish between the kidney and the capsule. There was no carcinoma, and no caseous deposit to be detected in this mass.

The left kidney, disease of which had not been suspected, until of late, was *in situ*,—was 8 in. long by $4\frac{1}{2}$, weighed 2 lbs. avoirdupois, and presented externally, and upon section, *precisely* the appearance of the other. It was impossible, owing to the condition of the adjoining parts, to trace the sympathetic nervous condition of the region, as the pressure of these huge masses had obliterated all such, or at least destroyed the evidence of their condition.

There did not seem to be enough remaining kidney structure in both of these organs, to have secreted or even to have permitted the drainage of an ounce of fluid daily, and yet our patient, the last time I examined her urine, about two weeks before she came to you, was secreting about two pints daily of straw colored urine, sp. gr., 1022, without albumen, and apparently with sufficient urea and water."

PERIOSTITIS WITH OTITIS—DEATH FROM SEPTICÆMIA.

George Stevenson, æt. 32, unmarried, native of Scotland, laborer, was admitted on May 3rd, 1876. He had always been a healthy man. In 1868 he contracted syphilis in Scotland. He states that the primary symptoms appeared 12 months after exposure, and that he immediately sought the medical aid of Dr. Campbell of Glasgow, who gave him iodide of potassium and mercury. Six months after, secondary symptoms appeared, which were

also treated by Dr. Campbell. He continued the above treatment whenever any syphilitic symptoms would appear.

On the 5th of February, 1874, he was kicked by a horse just above the right patella, outer side. The part swelled so much that he was obliged to undergo treatment in Staunton, Virginia. Liniments were applied which reduced the swelling but left the leg rather stiff; two months after it swelled again for which he received iodide of potassium, and wine of colchicum. This relieved him for a short time, but the swelling returned again in a few weeks and has been troubling him since. He applied fly blisters of his own accord, one over the middle of the thigh and one over each condyle of the femur; these gave him some relief. Nov. 19th, 1875, he applied tincture of iodine about two inches above the internal condyle every other day; the skin became very tender, suppuration took place, and pus escaped. The leg, by this time, was so troublesome, he became unable to work, and entered a hospital in Philadelphia where he remained two months, the improvement being very slight. He then entered the Presbyterian Hospital, New York, remained there three weeks, and was removed to a hospital on Ward's Island where he was treated by the injection of dilute carbolic acid as a spray into the opening of the thigh, two inches above outer condyle. He remained there until April 24th, 1876, when he left for St. Catharines to obtain work on the new canal, but when he arrived here he was obliged to enter the hospital on account of his trouble increasing. The symptoms on admission were pain in the thigh and a discharge of pus from sinuses in front and behind.

May 4th.—Dr. Mack made 2 incisions; one an inch long on the inner side of the thigh, and the other one and a half inches long on the outer side. Into these, probes were introduced for the purpose of detecting diseased bone.

May 5th.—Searched for diseased bone with a vertebrated probe, but did not detect any. Bowels being constipated, two compound rhubarb pills were ordered.

May 6th.—General health good; appetite voracious. Diseased bone was again sought for but could not be detected. Inflammation of the periosteum was diagnosed, and iodide of potassium and hydrarg. perchloridi ordered.

May 7th.—Not feeling as well to-day as usual,

due to surgical fever having set in ; the following was ordered :

R Quinæ Sulph ʒss.
Ac. Mur. Dil. q. s.
Tinct. Card. Co. ʒj.
Spts. Eth. Nit. ʒss.
Tinct. Camph. Co. ʒij.
Aque ad ʒijj—M.

Sig.—ʒss. ter in die.

Two compound carthartic pills were ordered, at night, and two in the morning. One small piece of bone came away to-day.

May 8th.—Much better to-day ; did not sleep well last night.

May 9th.—Openings in the thigh nearly closed ; slight discharge. Complaints of pain in the chest, cough and expectoration of blood, which undoubtedly came from the posterior nares. Several small pieces of bone came away to-day. Turpentine fomentations were ordered to be applied to the chest ; pulv. Doveri grs. x. at bed time.

May 10th.—Slept well last night ; suffering from severe headache and slight fever ; bowels constipated for which an enema of warm water was ordered ; discharge from leg, slight.

May 11th.—Much better to-day ; rested well last night ; enema operated well.

May 12th.—Suffering only from headache to-day ; was ordered quinine and Dovers powder, one every four hours.

May 13th.—Severe salivation supposed to be induced by pil. cath. co. of May 7th ; patient very much reduced in strength ; stimulants were ordered. Temperature 101° F. ; pulse 98 ; respirations 24½ ; tongue whitish and dry ; face livid ; skin dry ; diarrhœa, and delirium. A gargle of chlorate of potash was ordered, and the patient put upon iron, quinine and strychnia.

May 14th.—Is very much better ; diarrhœa is slight ; salivation abated ; leg looking better.

May 15th.—Salivation ceased ; fever has abated ; suffers from slight headache to-day. Pulv. ipecac co-ordered to be continued, but to alternate with the administration of McMunn's elixir of opium.

May 16th.—Was very delirious yesterday afternoon ; complains of pain in the left shoulder to-day, which is the result of falling out of bed. Appetite improving ; bowels open.

May 17th.—Free discharge from sinuses ; violently delirious last night, required the application

of the straight jacket. Sinuses ordered to be injected with warm water.

May 18th.—Slept well last night ; strength is much reduced ; quinine mixture discontinued, and quinine and Dovers powder substituted.

May 19th.—Temperature 103° F. ; pulse 115 ; very low ; was very delirious last night.

May 20th.—Patient is failing every day ; delirium continues. Will take very little nourishment of any sort ; bowels constipated ; an enema of castor oil and turpentine was ordered to be administered at once ; chloral and bromide of potassium were ordered every four hours.

May 21st.—Became conscious at 11 A.M. and said he was going to die ; he expired at 11.20 A.M.

Sectio Cadaveris. This was performed by Drs. Copeland and Greenwood eight hours after death. Brain normal, pia mater congested ; lungs healthy ; extensive pleuritic adhesions were present on the right side. The cavities of the heart were filled with dark fluid blood ; no clots present ; vessels of heart very much distended ; no organic disease of heart. Abdominal viscera healthy. A portion of the femur six inches long was removed and examined. The periosteum was very much injected, thickened and easily separated from the surface of the bone. The whole shaft of the femur was diseased, the part most affected being from a few inches above the condyles, upwards for about four inches, its largest circumference being six inches. It presents only one sinus which does not enter the medullary canal, (sinus is as large as a crow quill.) The compact portion of bone is very much thickened, and measures one inch from the external surface of the bone to the medullary cavity encroaching so much on the cavity, as nearly to obliterate it.

ELEPHANTIASIS GRÆCORUM.

History.—Thomas D. Scott, æt. 38 ; confectioner, born in Quebec ; was admitted into the Hospital on the 22nd of March, 1876. Up to January 1876, he had always enjoyed good health, only previous diseases being remittent and intermittent fevers. He was a man of good habits, and had worked in many of the principal cities of Canada and the United States ; the farthest south he had been was Memphis, where he stayed three months, during which time he worked at his trade. While there, when chopping kindling

wood the axe slipped and cut his leg, and being careless, and wearing damp stockings and poor shoes, inflammation set in. By careful treatment he finally got well, but whenever he had cold or damp feet it seemed to affect his leg, which would occasionally ulcerate. After several such attacks it again broke out in January 1876, becoming so severe as to prevent him working. He began then to treat it himself, using patent remedies; seeing no improvement he sought medical aid in the National Institute, Indianapolis; after remaining there three or four weeks without deriving any benefit, he returned home, and sought admission into the St. Catharines General and Marine Hospital.

SYMPTOMS ON ADMISSION.—General health poor; left leg (upper $\frac{2}{3}$), and foot very much enlarged, the latter was studded with small round tumors the size of a pea, of a livid or purple hue; the lower third of the leg was encircled by an extensive sore.

March 25th.—Oleum morrhue was administered; and \mathfrak{z} i of the syrup of iodide of iron and quinine, in a little water three times a day also the following:

R. Acid Boracic \mathfrak{z} j
Adepis \mathfrak{z} j.

Misce fiat Unguentum.

General health improved up to April 22nd, when slight constipation was complained of, which was relieved by ol. ricini \mathfrak{z} ss.

April 23rd.—Having been disturbed in his evening rest for a few nights by noise in the ward, produced by an unmanageable patient, and being informed of his only hope of recovering, viz., amputation, he became very restless, and began to fail in health, but by removing him to a separate room where he might enjoy perfect silence and good rest at night, he rapidly improved. In the meantime \mathfrak{z} grains of quinine were ordered three times a day, also 4 to 6 ozs. of sherry wine daily.

April 27th.—Feeling very well, pulse normal, etc. To-day being the day appointed for the operation, it was accordingly performed at 12.30 P.M.; the limb was amputated at the junction of the lower with the middle third of the thigh. The operation was performed by Dr. Mack, assisted by Drs. Comfort, Goodman and Copeland. During the operation the atomizer was in action, emitting a vapor of carbolic acid, which diffused itself through the atmosphere of the room. After

applying the necessary *sutures* and adhesive plaster, the stump was dressed with dry lint; placed next to this was lint and cotton soaked in a hot saturated solution of boracic acid and dried, and this covered with Lister's antiseptic gauze, and the whole covered with oil silk and bandaged. After the operation he was very restless for some time. Two hours after the operation he went to sleep, and slept for half an hour, after which in order to gain more rest and keep the patient quiet, tincture of opium was administered, which made him very excitable.

April 28th.—Pulse, respirations and temperature normal.

April 29th.—Dressings were removed, after being on 48 hours; they emitted not the slightest odor, and the stump looked very well; the dressing was repeated as before; being so very restless it was found necessary to administer 20 grains of chloral hydrate, and if required 10 grains in 2 hours. Evening, pulse 80; respirations 26; temperature 98 F.

April 30th.—Morning, dressings repeated; stump not looking so favorable; pulse 78; respirations 26; temperature 100°. Evening, pulse 78; respirations 26; temperature 101°.

May 1st.—Patient feels very well; stump looking better; dressings repeated, but instead of using ordinary dry lint next the stump, boracic acid lint dried was used, and next to it was placed lint saturated with a cold solution of boracic acid, then oiled silk, and antiseptic gauze over all and bandaged. Morning, pulse 70; respirations 23 $\frac{1}{3}$; temperature 98° F. Evening, pulse 80; respirations 26 $\frac{2}{3}$; temperature 96° F.

May 2nd.—Slept well last night; appetite good; stump rather painful to-day; slight discharge. Repeated dressings same as yesterday. Morning, pulse 70; respirations 23 $\frac{1}{3}$; temperature 97 $\frac{1}{4}$ ° F. Evening, pulse 80; respirations 26 $\frac{2}{3}$; temperature 98° F. Slight constipation complained of for which two compound rhubarb pills were ordered to be administered.

May 3rd.—Did not rest well last night; feels better to-day; appetite good; pills operated nicely; stump not looking as well as usual; slight discharge of pus; dressings ordered to be repeated. Morning, pulse 78; respirations 26; temperature 99°. Evening, pulse 75; respirations 25; temperature 98°.

May 4th.—Same as yesterday. Morning, pulse

92; respirations 30 $\frac{2}{3}$; temperature 100°. Evening, pulse 99; respirations 32; temperature 101°.

May 5th.—Stump looking better; repeated dressings; injected sinuses with carbolic lotion (1-40.) Ol. ricini was administered yesterday which operated.

May 6th.—On the evening of the fifth he became very restless; suddenly there was a change from restlessness to perfect stillness. The nurse becoming suspicious examined the stump and found it bleeding profusely. She tried to check the hæmorrhage and sent at once for Dr. Copeland but before he arrived the patient expired.

Sectio Cadaveris, 14 hours after death. The muscles of the thigh were undergoing "fatty degeneration." There was atheromatous degeneration of the arteries; the ligatures were found to be secure and as sound as they possibly could be; but the arteries were found to have ulcerated between the ligatures and Scarpa's triangle. Both profunda and femoral were found open. Viscera generally healthy; no other disease of the organs of circulation.

Selected Articles.

TWO NEW CHEMICAL PRODUCTS FROM A HYGIENIC POINT OF VIEW.

I have the honour to call the attention of the International Hygienic Congress to some new chemical preparations which will have, in all probability, a very considerable influence upon the amelioration of public health. Everyone is aware of the dangers inherent to the manufacture and to the use of colours having a basis of lead, that is, made with white lead. We all know that the health of the workmen is compromised to an enormous extent in this branch of chemical industry, and that the remedies adopted, such as the habitual use of dilute sulphuric acid for drinking, the frequent washing of the body, the use of gloves and "respirators," &c., are totally inadequate to arrest the evil. It would be easy—but it is useless here—to dilate upon this subject. For many years past, efforts have been made to discover some white substance which could effectually replace white lead in the painting of buildings, ships, wooden and metallic works of all kinds, &c., and I have myself devoted several months of hard work to this important subject, but with very little success. There has been found, it is true, in oxide of zinc, a white substance less poisonous than lead, and a substance that can very well be used for oil painting, but its production is very costly, and its

mechanical properties as an oil paint are not sufficiently prominent to enable it to cope advantageously with the commerce of white lead. It is very different, however, with an invention of Mr. Thomas Griffiths, of Liverpool, who has succeeded in obtaining a very interesting product, to which I desire to call the attention of the Congress in a few words. This new preparation, which is already manufactured on a tolerably large scale, has for its basis a sulphide of zinc, or any oxy-sulphide of that metal, the properties of which, as an oil paint, are most remarkable, as I have had several times the opportunity of testing. It is prepared by precipitating a salt of zinc, by means of a soluble sulphide, washing and drying the precipitate. This is next calcined at a red heat, with certain precautions, and as it leaves the furnace it falls, whilst quite hot, into cold water. There it is submitted to levigation, collected, and afterwards dried. The result is a white colour of great fineness, and of exquisite beauty. From a hygienic point of view, this new zinc white of Mr. Griffiths is infinitely superior to white lead, as it is, moreover, in a practical sense. It possesses no noxious quality; neither its manufacture nor its use affects the health of the workmen; the price at which it can be obtained is comparatively very moderate; its durability, in the most variable of climates, is, so to say, indefinite; and it is in no way affected by gaseous emanations of any kind, nor by damp. This is a product which deserves, most assuredly, the attention of all those who have at heart the health of the working classes. What is most remarkable is that the new white covers much better than white lead, while it is more resisting as regards the attacks of the weather; so that its use is not only without any kind of danger to the health, but it is more economical than the latter. The second preparation, of which I desire to say a few words here, is a new kind of paint called enamel paint, which is already largely used in England and in the English colonies. It is a product which, of late years has become a special branch of manufacture on the part of the Silicate Paint Company, of London, thus named because the oil paints manufactured by this Company have for their basis a very pure silica, obtained from a natural deposit discovered a few years ago in the west of England. This deposit which is very extensive, consists of hydrated silica, containing about 13 per cent. of water, and after being calcined it supplies a very white substance, containing about 90 per cent. of pure silica. The natural product, after levigation and calcination, thus yields a very white and very fine substance, which assimilates perfectly with other colours, and with oils, &c. By means of this perfectly inert and harmless substance, and certain resinous preparations, there have been produced enamel paints which are impermeable to water, and which are applied easily

by means of a brush like ordinary oil paints. These enamel paints dry very quickly on the various objects of wood, stone, or metal, to which they are applied, yielding a hard, smooth, brilliant and impervious surface, which resembles either, porcelain or marble, and is endowed with great cleanliness. As this application is quite insoluble in water, it can easily be washed, when desirable, with soap and water, and its durability is indefinite. For the walls of hospitals and barracks, for preventing the entrance of damp into apartments, and for a host of other hygienic purposes, as well as for purposes of decoration, and the preservation of metallic surfaces, &c., this ingenious enamel paint will certainly be found of very great value. I do not hesitate to take the risk of abusing the time at the disposal of the Congress in calling the attention to these new chemical products, for I am perfectly convinced that they must be ranked among the most ingenious and useful inventions that have been made in our day.—*Dr. Phipson, Herapath's Journal.*

MR. SPENCER WELLS ON OVARIOTOMY.

It is not an easy task to criticise such lectures as the six just delivered by Mr. Spencer Wells at the Royal College of Surgeons.

Mr. Wells begins by carefully defining his task. "All that I can do," he says, "is to bring before you, in the plainest manner, the results of twenty years' exceptionally large observation and practice . . . and . . . to tell what I have learned about the diagnosis and surgical treatment of abdominal tumors; how I have learned it; the lessons I have been taught by mistakes and failures; the satisfaction which has attended increasing success." These sentences accurately describe the scope of the lectures; beyond the programme thus sketched out they do not go.

The first lecture contains an account of the mode of examining patients with abdominal tumours, and recording their cases. This part is interesting, and fertile in useful hints; but we fancy that every surgeon of large experience soon falls into a method of note-taking suited to his own purpose, and is not likely to bind himself down to the system of anyone else, however eminent. Mr. Wells then runs over the different kinds of abdominal tumors which have been, and therefore may be, mistaken for ovarian growths, noting the chief diagnostic marks of each. The brevity doubtless imposed upon him by his limited time makes this section, also, suggestive rather than exhaustive. We find some remarks, not so clear as we could wish, upon the chemical and microscopical characters of the liquids drawn from ovarian cysts. "A chemical and microscopical examination of the fluid that is removed," says the lecturer,

"will settle any doubt as to whether it is free peritoneal or ovarian fluid, or fluid of some other cyst." Subsequently, however, he mentions observations which appear that to diagnostic rules based on this mode of investigation there are exceptions. We should have been glad of some more definite statement of the amount of weight to be attached to these facts. Do, or do not, the chemical and microscopical characters of the fluids in question with certainty reveal their origin? To this question we should like to have heard the answer of Mr. Wells.

In the third lecture, we enter upon the lecturer's own special province. He first describes tapping; its history, methods, and the limits of its utility. Here he expresses a decided opinion, and his dictum ought to be, and no doubt will be, recognised as an authoritative rule. "I think," he says, "I have seen quite enough now to warrant me to endeavour to impress upon surgeons that, if the cyst be a single cyst, before they do anything else, they should see what can be gained by one tapping." Then he comes to ovariectomy. The rules which he lays down as to the circumstances under which the operation should be performed are eminently judicious. So long as no great inconvenience is caused by the tumour, the surgeon should hold his hand; but he should not delay operation till the patient's health is so undermined as to compromise success. The mere size of the tumour, and the difficulties met with in the operation, do not so much affect the result as the patient's constitutional condition. The operation should not be associated with a sudden change, from activity and excitement to the monotony and restraint of the sick-room. Almost the only positive contra-indication to an operation is the fact that the patient has some other fatal disease. Even the probability that a tumour is cancerous does not absolutely forbid its removal.

As to the details of the operation, comment is not needed. Mr. Wells's success is the proof of the correctness of his method. We may note, however, that as an anæsthetic he prefers the bichloride of methylene, which he thinks safer than chloroform. In the management of the pedicle his experience is greatly in favour of the clamp. The result to the patient is, he rightly says, the great thing to be considered, the thing with which nothing else can be compared in importance; and tried by this test, the clamp comes out best. The justification of the ligature is, that the use of the clamp is not practicable in every case. The cautery treatment, Mr. Wells has found troublesome and uncertain. The necessity for carefully counting forceps, sponges, etc., was impressed upon the listeners by anecdotes narrated at length in a dramatic form.

In the part of his lectures which deals with the treatment of the abdominal wound, Mr. Wells

refers to a few valuable experiments which he has made upon living animals. We must say we remark with much regret the apologetic tone in which he thinks it necessary to refer to them. He speaks of his having been accused of cruelty, and protests that the number of experiments he has made is but small. But we think that a man in his position should guide public opinion, and not bend to it. If he do allow himself to be influenced by the prejudices of others, it should be by the opinion of the educated public, the leaders of the scientific world, and not by the excited feelings of amiable, well-meaning, but misinformed persons. Those who, like Mr. Wells, are in the proud position of not only understanding what science is, and how scientific problems are to be worked out, but of possessing the confidence of the public, should use their opportunities to lead people to appreciate science, and should help them to discriminate between those whose knowledge and work make them worthy of being heard, and those obscure seekers after notoriety whose only hope of getting it, lies in appealing to the feelings of persons unaccustomed to think. Comparing this passage with one in the sixth lecture, in which Mr. Wells implies that his adoption of the antiseptic method was retarded by the want of some experiments on animals which he would have liked to have made, we think that if he apologises for anything, it should be for having so little availed himself of this means of interrogating nature.

A topic upon which the lecturer's remarks are very interesting, is that of the antiseptic system. Hearing and seeing the great results which had attended this method, Mr. Wells thought it his duty to try it; but accidental circumstances prevented his doing so at the time he had intended, and, going on in his old way, his results became even more brilliant than had attended the antiseptic system elsewhere, and were not subsequently outdone by the new system in Mr. Wells' own hands. This forms an instructive commentary upon the doctrine of *contagium vivum*, as expounded by Dr. Roberts at Manchester. To generate disease, there are not only needed morbid germs, but a soil in which those germs may live and propagate. Listerism (as it is called abroad) aims at, and succeeds in, destroying the germs. But if, by scrupulous cleanliness, these germs can be deprived of any soil in which they can thrive, Listerism is superfluous. This view is borne out, not only by Mr. Wells' experience, but by Mr. Callender's statistics of amputations. Those hospitals in which Listerism has worked the greatest change, have been those in which, prior to its introduction, the principles of surgical hygiene have been the least attended to. Safety from wound-poisoning lies in either plan, the greatest security being obviously in the combination of both. We should like to call attention, but have not space to

do more, to Mr. Wells' most judicious remarks upon the administration of stimulants after operation. We should also like much to have Mr. Wells' opinion of Battey's operation; for the sake of this, we could even have spared Lord Selborne's calculations, which we fancy we have heard before.

And with respect to uterine tumours, Mr. Wells omits to answer what seems to us the vital question with regard to them; what are the circumstances which render the abdominal removal of a uterine fibroid justifiable? There is one vast difference between these growths and ovarian cysts. Ovarian tumours tend to death; uterine tumours, as a rule, do not. Hence the rule of practice must greatly differ. We should like much to have heard what Mr. Wells thinks on this point.—*Med. Times and Gazette*, Aug 3, '78.

FALLOPIAN PREGNANCY.

NEW YORK ACADEMY OF MEDICINE.

Dr. Laurence Johnson reported (New York Academy of Medicine) a case of Fallopian pregnancy occurring in a woman at twenty-nine years, married, and the mother of two children, aged respectively four and a half, and two and a half years. She had always been healthy. Her last menstruation commenced on the 11th of February, 1878, and continued the usual length of time—three or four days. There was no evidence of pregnancy except the non-appearance of the menses on March 11th. On March 23rd, at about noon, she suddenly began to suffer from pain referable to the pelvic region, became faint, and was put to bed. Small quantities of brandy were given at intervals, and she partially regained her strength, but in the evening there was a return of the faintness. She vomited once or twice and had no evacuation from the bowels. The doctor saw her for the first time soon after the attack of fainting in the evening; found her very pale, with a feeble pulse, 140, but there was no discharge of blood from the vagina.

March 24th.—Patient appeared somewhat brighter pulse somewhat stronger, but rapid. Urination without pain; abdomen somewhat tympanitic; tenderness all around the uterus, but especially upon the right side. Pain was not a prominent symptom at any time during the entire history of the case, although at no time was she markedly under the influence of narcotics.

March 25th.—Patient sank rapidly, and was thought to be dying. She rallied, however, so that on March 26th she was comparatively bright. On the night of the 26th she sank and died, four days from her first attack of faintness.

Autopsy twenty-four hours after death.—Pelvic cavity filled with blood. Ruptured cyst in the

right Fallopian tube, close to the uterus, and probably not larger than a hickory-nut. Right ovary contained a recent corpus luteum. Uterine decidua very apparent. Little or no evidence of peritonitis.

Dr. Johnson raised the following important question: *Would not an operation, with the view of securing blood-vessels, have been feasible and justifiable immediately after the occurrence of the first hemorrhage on the 23rd of March.*

METHOD OF TREATMENT SUGGESTED BY DR. EMMET.

Dr. T. Addis Emmet, in the light of a case reported by Dr. McBurney, and which was seen in consultation by Dr. Thomas and himself, believed it to be a feasible operation, as soon as the Fallopian pregnancy was recognized, to first dilate the uterus, then dilate the tube, and in that manner remove the foetus. Dilatation of the uterus took place when only a moderate quantity of fluid was enclosed in its cavity, and at the same time the fluid backed into the Fallopian tubes. He therefore was perfectly satisfied that, with proper instruments, the uterus could be safely dilated, and also the Fallopian tube, and as the cyst was usually near the body of the uterus, its contents could readily escape into the cavity of the uterus when such dilatation was effected. Dr. Emmet then exhibited an India-rubber cot, such as he had been in the habit of using during the last ten years, for the purpose of dilating the uterus. The dilator was manufactured by Shepard & Dudley, and consisted of an India-rubber cot containing a tube into which a sound could be introduced, so that it could be carried to the fundus of the uterus; an additional fixture permitted the attachment of a Davidson's syringe, by means of which the cot could be distended to any degree required. When the uterus had been dilated, a curved sound could be used, and the cot introduced into the Fallopian tube, and dilatation produced as in the former instance.

FEASIBILITY OF A SURGICAL OPERATION.

Dr. Emmet was of opinion that as soon as rupture of the cyst occurred, it was a proper operation to immediately open the abdomen and secure the bleeding vessels; for, in comparison with such operations as ovariectomy, opening the abdomen for that purpose was a simple affair.

Dr. Post referred to a case reported to the International Medical Congress by Dr. —, of Georgia, in which laparotomy was performed for that purpose, and with good results.

Dr. Sell approved of the operation.—*Medical Record.*

M. Tripiet to establish a fistula between the cavity of an ovarian sac and the exterior. He has tried it in one case with success. The interior of the sac can in this way be washed out or treated with iodine injections or cauterised. He has used injections of iodised water daily. The galvanocauteric is used to establish the fistula. This operation is less formidable than ovariectomy, and can be easily carried out, but, of course, is not devoid of danger, but it may be applicable in cases where gastrotomy is refused or inapplicable. With regard to injections, they should not be too strong. We may point out that death from poisoning by iodine has been recorded where the drug was injected. This operation may be compared with electrolysis for ovarian dropsy.—*The Doctor.*

DR. MCLEOD ON SAYRE'S METHOD OF TREATING SPINAL DISEASES.

Dr. G. H. B. Macleod gave, on a patient at present under treatment for Pott's disease of the spine, a demonstration of Sayre's method of treating this affection. He said one great advantage the system had over the former treatment was, that the patient was allowed to go about, and into the open air. As they were aware there were two kinds of deformities of the spine; Pott's disease (antero-posterior curvature), which was a true disease, in which the bodies became disintegrated: and lateral curvature, not a true disease, as it involved no pathological change, arising from abnormal contraction of the muscles. Pott's disease is mostly seen in young persons, and more frequently in boys and girls; and, as Sayre has pointed out, it is frequently traumatic in its origin. The ordinary idea that Pott's disease is strumous, and due to scrofula, it not borne out by evidence, though it might be true to this extent, that a scrofulous child is more readily affected than another. The early symptoms are a little difficult to recognise. If the lesion be in the cervical region, there is often a feeling of constriction of the neck, dysphagia, and a loud hacking cough. When these symptoms are present, without any indications of chest mischief, the spine should be examined. If in the dorsal region, there are dyspeptic symptoms, with a kind of inspiration, which Sayre described as *grunting*. Pains in and around the chest, and general lassitude, are often present. If lower down, the symptoms are often referred to the bladder. There are wandering pains of the abdomen, thighs, &c. To examine the child, they should take him on their knees, face downwards, the thighs of the surgeon being parted, so as to make extension upon the child's spine. They would see by the behaviour of the child, if Pott's disease were present. By gradually making extension, they would often evoke from the patient a

OVARIOTOMY SUPERSEDED.—A proposal has been brought before the Paris Academy of Sciences by

smile of satisfaction from the relief experienced. This would at once vanish, and a cry of pain be elicited if extension were withdrawn, and the vertebræ crowded on one another. Then again the mode of walking, of stooping, &c., were characteristic. If jumping down from a chair, the child would light on his toes or the fore part of the foot—never his heels. He had a habit of keeping his hands resting on his thighs. When stooping he did not bend his back at all, but by a series of shifts and expedients managed to reach the object he wanted to lift. The pain arising from the affection was often mistaken for growing pains. The principle of Sayre's treatment was by some hard supporting agent to throw the pressure upon the bones not diseased.

Dr. Macleod then demonstrated the treatment on a patient. Dr. Macleod added that he had tried other substances besides plaster of Paris, such as paraffin, glue, starch. Glue did pretty well, but was not equal to plaster; while paraffin did not do well, and was dirty to handle. He also pointed out that instead of Sayre's suspension apparatus, it was easy to improvise with a room door an arrangement that would serve the purpose. As regarded abscesses, which sometimes occurred in Pott's disease, Sayre, who did not believe in antiseptic surgery, opened them freely, and cleansed out the abscess with Peruvian balsam (an antiseptic). Dr. Macleod then demonstrated minutely the further treatment for abscesses. He also showed by means of a model that, as proved by Sayre, in what was usually called lateral curvature, there was a rotation of the bodies of the vertebræ upon themselves. On this account he (Sayre) had substituted the term "Rotary Lateral" for lateral, as being descriptive of the exact state of matters. In regard to this kind of curvature, all the ordinary kinds of apparatus went on a wrong principle, and did harm. The object was to get back muscular tone, and this was done by exercising the muscles which had lost their energy. Mere lateral pressure would do no good at all. The spine must be straightened by self-suspension several times daily, for months at a time. The hand on the concave side should be held uppermost. After a considerable experience of these cases of curvature, he had no hesitation in saying that Sayre's treatment of them was very far in advance of any former methods of treatment which he had tried.—*Glasgow Med. Journal*.

TUBERCULAR ULCER OF THE TONGUE.

M. Nedopil, in the *Archiv. für Klinische Chirurgie*, remarks that the diagnosis of secondary tubercular ulcer of the tongue is generally not difficult in the presence of other indications of tuber-

culosis. On the other hand, primary tubercular ulcer can often be scarcely distinguished from cancer unless a microscopic examination be made; while the failure of anti-syphilitic treatment, distinguishes it from syphilitic ulcer, which often has a similar appearance. The tubercular ulcer of the tongue runs a course resembling that of cancer. A small hard nodule on the edge or upper surface of the tongue, which is often overlooked, at last falls off, and leaves a dirty ulcer, with an indurated base, which generally spreads more slowly than a cancerous ulcer. A cure can be produced only by early extirpation, which, perhaps, may arrest the development of general tuberculosis. The author has observed four cases in Bilroth's clinic; two of the individuals were thirty-two years of age, the others sixty-eight and seventy. In three cases the ulcer was extirpated, and healing took place in a few days. In the excised pieces the tissue around the ulcer was studded with miliary tubercles, mostly toward the free surface. The morbid process appears to commence with a general transformation of the muscular tissue into a homogenous slightly granular deposit containing proliferating muscle-nuclei. Later, the primary deposits become confluent, and giant cells are formed from the obstructed portions of the blood-vessels; in some of these Nedopil found cavities filled with brown pigment. The growth of the tubercle appears to take place partly through proliferation of nuclei (without cell formation) in the interior, partly through metamorphosis of the neighbouring tissue.—*The Doctor*.

BONE FORMATION AFTER RESECTION OF THE LOWER JAW.

The following is by B. VON LANGEBECK, in the transactions of the "German Society of Surgery," Sixth Congress:—

GENTLEMEN: I am permitted to make this brief communication through the (as I may well say) exceedingly great attention which Prof. J. R. Wood, of New York, has shown, in sending this preparation here from New York by his assistant, Dr. Wiggin, in order to allow it to be demonstrated. Dr. Wiggin must return again to-morrow to New York, and, although our allotted time is very brief, nevertheless I have deemed it necessary to present this demonstration, because otherwise our distinguished American colleague would have sent us this really grand work in vain.

Prof. Wood, Surgeon to Bellevue Hospital, in New York, had the kindness to send me the photograph of this skull last fall—a skull of which the entire under jaw had been extirpated on account of phosphorus-necrosis, and of which the whole lower jaw has, in the course of a brief time, formed itself anew; and when, in my surgical

lecture, I had showed and explained this photograph, *I did not believe that a corresponding preparation really existed anywhere*, before he had the courtesy to send us this skull with the newly-formed lower jaw. I will briefly present the history of the operation, which is described in a short article by Dr. Wood in the "New York Journal of Medicine" for May, 1856, as the "Removal of the entire Lower Jaw, for Necrosis caused by Phosphoric-Acid Gas."

A girl—Cornelia S.—sixteen years of age, formerly always healthy, had worked in match-factories for two years and a half, one of which was very badly ventilated. She was occupied eight hours daily in picking matches, but enjoyed the best health until May, 1855. At that time there took place, along with toothache, a swelling of the lower jaw, with suppuration. The patient, however, continued her work up to December, 1855.

Upon her reception into Bellevue Hospital, total necrosis of the right, and partial of the left, lower jaw existed, with profuse suppuration. The pus poured for the greater part into the cavity of the mouth, and outward through a fistula opening in the lower border of the mandibula. Notwithstanding this, her general health had remained good, and her appetite good, only chewing very much impeded.

On the 19th of January, 1856, Dr. Wood, made a resection of a part of the right lower half of the jaw, with most careful saving of the periosteum, and with preservation of the chin-portion of the lower jaw. Healing resulted without interruption, but it soon became evident that the entire remaining under jaw was diseased also, and this had likewise to be removed on the 16th of February, 28 days after the first operation. Excepting the retraction of the tongue ensuing upon the removal of the jaw, and the choking symptoms induced thereby, the good effect of the operation and the healing of the wound remained uninterrupted, and in March, 1856, the patient was able to be discharged, recovered.

The reformation of the bone was *complete*, and the function of the new lower jaw left nothing further to be desired. In the photograph taken at this time, you observe the admirable contour of the lower jaw, of which the chin-portion only recedes slightly. Some years later, Cornelia S. died of abscess of the brain, and so Dr. Wood acquired the possession of this skull, which stands before you, and upon which you observe the entire lower jaw, with extremely complete form, only a very little smaller than the original must have been.

Formerly, cases of phosphorus-necrosis came into the clinic here not infrequently, and scarcely a term passed in which some jaw-resections were not performed. Thanks to the better ventilation in factories since 1864, scarcely any cases have come under observation, and it appears that phosphorus-necrosis will, at no very distant time, be eliminated.

I have performed subperiosteal resection of the entire lower jaw six times—four times in consequence of phosphorus-necrosis, and twice in consequence of acute osteo-periostitis. In all these case reformation of new bone was observed, and, indeed, as in the case operated upon by Dr. Wood, with most complete restoration of the function.

When one extirpates the entire lower jaw from under the periosteum at one sitting, the chin must invariably recede. The room for the formation of the new lower jaw is restricted by muscles, namely, by the genio-glossi; the contour of the new lower jaw develops imperfectly, and the chin-portion of it retreats more or less perceptibly. In order to obviate this evil, I have, like Dr. Wood, made the operation at *two different times*, and at first cut out from the periosteum the smaller portion of the mandibula—which was, however, most diseased—leaving the chin and larger portion alone, and then, after four or six weeks, resected the remainder. But even then, as this photograph and the description given by Dr. Wood indicate, the lower jaw is always smaller, and the normal prominence of the chin is lacking.

The evil is almost completely avoided, if as Billroth has recommended, one leave behind in position osteophytes from the necrosed bone, in immediate contact with the periosteum. This photograph shows you such a case. I cut out first the smaller part of the necrosed jaw-bone, and, after new bone could be distinctly felt—six weeks later—I cut out the greater part, with the chin-portion. The resected jaw here shows you that osteophytes were left almost completely around. The photograph, which is taken half in profile (August Matthe's), shows you that the contour of the lower jaw is very complete, and that the chin stands out in the normal manner.

The skull sent to us by Dr. Wood settles at once the question of the durability of the newly-formed bone. It has, indeed, been repeatedly maintained, that the newly-formed bone, after subperiosteal resection, cannot be of a durable kind, but that it subsequently must be reabsorbed. At all events, this may happen, and I have myself seen it in the case of a woman suffering from phosphorus-necrosis of the lower jaw, much reduced by long suppuration, whose lower jaw, newly formed after resection, was, after a twelvemonth, almost entirely reabsorbed. Such an absorption of bone is, however, a rare occurrence in my observation, and I can testify to the unchanged persistence after years of the new bone-formation, after subperiosteal extirpation, as well in the lower jaw as in long bones (tibia, radius, os metacarpi pollicis).

Dr. Wood's patient died some years after the operation, and yet you see the new lower jaw preserved in all parts, although a trifle smaller than was the original jaw.—*N. Y. Med. Record.*

THE METRIC SYSTEM* IN A NUT-SHELL.

BY EDWARD WIGGLESWORTH, M.D.

Surgeon-General Woodworth, of the U. S. Marine Hospital Service, May 3 issued a circular, with the approval of Secretary Sherman, requiring medical officers of the Marine Hospital Service to make use hereafter for all official, medical, and pharmaceutical purposes, of the Metric System of Weights and Measures, which has already, under the act of July 18, 1866, been adopted by this service for the purveying of medical supplies.

The metric system is already *legalized* in both America and England. The only question now is, which of the two, the most progressive or the most conservative nation on earth, shall be the first to definitely and finally adopt it as an *exclusive* system? [N.B.—England was 400 years behind the continent in adopting our present arithmetic.] Russia has already taken the preliminary steps towards its final adoption. The rest of the civilized world long since made the system obligatory, in whole or in part, except that, in Sweden alone, its obligatory use is to date from a period in the future, 1889.

Now, what is this metric system? Metric is from the Greek word "metron," a measure, spelled with Epsilon, e short, and therefore pronounced, mè-tric.

The meter [measure] is practically, a fixed quantity, namely, the ten millionth part of the earth's quadrant from the Equator to the North Pole. With the meter everything can be *measured*, for it is itself the unit of a length; a cube, the edge of which is tenth of a meter, is the unit of capacity [Liter], and the weight of a cube of rain water, at its extreme contraction, the edge of which cube is a hundredth of a Meter, is the unit of weight [Gram].

It is the gram alone which concerns physicians for, in the metric system, *everything is best prescribed and dispensed by weight alone*; numbers upon a prescription paper being regarded by the pharmacist as representing Grains, Liters, or Meters. These are; Deci for tenth, Centi for hundredth, Milli for thousandth; Dekka for ten, Hekto for hundred, Kilo for thousand. Having these few words, the terms of Troy, Avordupois, and Apothecaries' weight, and of liquid measure, may be regulated to the limbo of pounds sterling, shillings, four-pence-ha'pennies, and farthings. As we say dime, cent, mill, so we say decigram, centigram, milligram. These prefixes are Latin, and *diminish* the value. Dekka, hekto and kilo are Greek, and *increase* the value. The mnemonic is

G I L D, *i.e.*, Greek Increases, Latin Decreases. Dekka occurs in the English word decade; hekto in hecatomb; kilo in chiliad.

"Being accustomed to the words mill, cent, and dime, we shall find the words 'milligram' quite as simple and easy to pronounce as our words 'pennyweight-troy,' 'hundred weight-avordupois,' 'scruple-apothecaries,' etc., notwithstanding the assertion to the contrary of those who grieve to give up the 'short and sharp Anglo-Saxon words used in our present *familiar* old tables of weights and measures."

Practically, moreover, for physicians, the whole system is reduced to grams and centigrams, just as in money to dollars and cents. On the right side of the prescription paper draw a perpendicular line from top to bottom. This decimal *line* takes

OLD STYLE.		METRIC.	
		Grams.	
m i or gr. i . . . equals			06
f 3i " 3i	"		4
f 3i " 3i	"		32

the place of all the decimal *points*, and obviates the possibility of mistakes. This is the way dollars and cents are separated on business papers. Additional security is gained by writing the decimal fraction [centigrams] of half size and raised above the line [of grams], since it represents a numerator of which the denominator 100 is given. To make assurance doubly sure, "Grams" may be written between the integer-column of figures, and if wished, the word "decimals" over the decimal column.

Now, what is a Gram? or rather, the values, metrically expressed, of our present awkward weights?

	Prussian.	Practical.	Precise.
Grain I =	0.06	0.06	0.065
℥ I =	1.25	1.25	1.29
3 I =	2.75	4.0	3.89
3 I =	30.0	32.0	31.1

The "practical" table alone concerns us. The "Prussian" [by order of the Prussian Ministry, Aug. 29, 1867] is given merely to show that our table is even nearer the actual truth than one which has been proved by actual experience to answer every purpose. The values of the grain and scruple are a little too small. As they are used for powerful drugs this is an error in the right direction. The values of the drachm and ounce are a trifle too large, but the proportions and therefore the ratio of drug to vehicle are preserved.

A prescription written metrically is always proportionate, and whether the pharmacist uses pennyweights, pounds, or tons; gills, pecks, or chaldrons; pints, gallons, or hogsheads, the ratios are preserved, and a teaspoon dose contains the same amount of medicine.

*"Universality, Uniformity, Precision, Significance, Brevity and completeness. A system of weights and measures born of philosophy rather than of chance."—Charles Sumner.

As regards administration, a teaspoon represents five grams, a tablespoon twenty grams; for a teaspoon holds one and one-third fluid drachms, a tablespoon a trifle more than four times as much.

In the Metric System *everything is weighed*, thus obviating the difficulties of evaporation, refraction and adhesion, and obtaining more conveniently, more exact results. In our old "systemless system" some fluids were measured. How shall we obtain with weights, the desired bulks of fluids with varying weights? Must we learn the specific gravities of all fluids?

Not at all!

1. Fixed oils, honey, liquid acids and chloroform, must at present be prescribed in our old weights, not measures, according to the pharmacopœia. Here change old weights to metric ones.

2. Not enough chloroform or ether is included in any one prescription to admit of harm arising from the amount contained in a single dose, even were their weights regarded as the same with that of water. Moreover, it is not difficult to remember that ether weighs seven-tenths as much as water, chloroform twice as much as ether.

3. There remain infusions and tinctures, glycerine and syrups. These four are used in bulk as doses, or as solvents or vehicles. The former two may be regarded as identical in weight with water; the latter two as one-third heavier, and when prescribing these we need merely write, by weight, for four-thirds as much as we should write for were we prescribing water, and we obtain an equal bulk. The teaspoon or tablespoon dose will then contain the desired amount of the drugs employed.

Or, simplest of all, we can make any mixture up to any desired bulk by merely directing the druggist to use enough of the vehicle to bring the whole mixture up to the requisite weight for that bulk.

The Metric Bureau, 32 Hawley Street, Boston, will furnish metric prescription-blanks to order, to druggists or physicians at four-fifths printer's rates, or any blank can be made sufficiently metric by a perpendicular line at the right, headed *grams*.

ALCOHOL AS FOOD.

Having read with interest the correspondence upon the above subject, I beg to quote a case that has lately occurred in my practice, which, in my opinion, proves that alcohol is a food. On March 1st, 1878, I was called to see a gentleman, a distinguished officer, who had seen much active service, and found him in a very weak and low state. I was assured by his friends that the only food he had taken for nearly a year, had been one egg *per diem*, beaten up with sherry. I was sent for in consequence of his refusal to take the egg any longer, or any food, with the exception of alcohol. I persuaded him to take milk, which he did, but

only half a pint a day, for three weeks; after which time until the day of his death, in June, he took nothing but alcohol in various forms. He was nursed throughout by a skilled nurse, in whom I have every confidence, DR. PHIBBS. — *British Medical Journal*.

TREATMENT OF ENLARGED PROSTATE.—It has been found desirable in the Dispensary practice to adopt a method of treatment for enlarged prostate, obviating the use of any instrument, as the patients are usually unable to buy one. A certain amount of relief is obtained by the fluid extract of buchu or of triticum repens, when the secretion is turbid or acrid; but their efficacy is, of course, slight when unaccompanied by the introduction of the soft catheter. It was my good fortune to try the effect of the fluid-extract of ergot in large doses for those cases, and was tempted to do so by the success I obtained from it in treating a case of simple incontinence without enlarged prostate. The treatment proved successful, and is now a standard one with us in the surgical department. The following case will illustrate the way in which it acted:

W. M., aged twenty, laborer, came to the Dispensary, May, 10th, 1876. He stated that for some 10 or 11 years he suffered from dribbling of urine. On May 3rd his troubles were much aggravated, and he came for relief. A catheter was introduced, relieving his bladder. The patient was then at once put upon the fluid-extract of ergot in teaspoonful-doses, to be taken three times a day. Previously he had passed water with extreme pain and difficulty seven or eight times a day, and from four to five times a night. He experienced great relief from the ergot.

May 23rd.—He reported that his water was now passed only five times a day, and twice at night. The water is clear, and there is little pain in passing it. In cases where the patients can buy the soft, elastic catheter (Nelaton's), it is recommended, with directions to use it twice or three times daily. This treatment may be combined with the use of ergot; but ergot alone has been found of great advantage, the patients returning at regular intervals to have their medicines renewed.—*Dr. Satterthwaite, N. Y. Med. Journal*.

THE HOT MUSTARD-BATH IN PNEUMONIA IN CHILDREN.—Dr. Leonard Weber, of New York, gives his experience in the use of this remedy, in the American Journal of Obstetrics, April, 1878. He has used the mustard-bath only in the severe cases of pneumonia of children. For years the treatment followed by him was that of the late Professor Traube, namely, the use of infusion of digitalis and nitrate of soda, whenever the pulse

and temperature of the patient were high, and there was an indication that something must be done to bring them down. This treatment proved satisfactory for a long time, but he finally failed to have his former success; and in the asthenic cases admitted to St. Francis's Hospital, New York, more than fifty per cent. died in spite of all treatment; and twelve per cent. of the sthenic form died, under the use of digitalis and an evening dose of Dover's powders. He further says:—"The great value of the hot mustard-bath as a means of saving the life of a pneumonic patient, after other remedies had failed, I learned in 1869. About a year before that, I attended J. A., ten months old, a previously healthy and robust child, afflicted with extensive pneumonia, after having been sick for a week with bronchitis. On the third day after I had seen and treated her in the usual manner, she became rapidly cyanosed and died. In November, 1869, another female child of about the same age and similarly good constitution, in the same family became affected in the same way, and when I saw it I recognized pneumonic infiltration of both upper lobes. In spite of emetics, digitalis, mustard plasters and poultices over the chest, she became cyanotic at the end of the third day, with stertorous breathing, cold extremities, and failing heart action. It occurred to me at this stage to immerse the patient in a hot mustard-bath of 105° F., prepared by diffusing about a pound of mustard in a baby-tubfull of hot water. I kept her in for about ten minutes, making thorough friction all over the surface, and until the skin had assumed a pinkish color. After being put to bed, which I had well warmed previously, the child began breathing easier and soon fell asleep. The skin remained warm, and an hour after the bath the child was perspiring freely. With the improvement of respiration, the pulse became stronger and less frequent, and the child took the breast most readily. Encouraged by this success, I repeated the process four hours later with the same good result; and after having administered five baths in the course of forty-eight hours, and given no medicine whatever, I had the satisfaction of seeing my patient convalescent."

Since then Dr. Weber has had about fifty cases, and gives here a short account of six of the most severe ones; all of them recovered, some of them being complicated with whooping-cough and measles, and in some cyanosis had occurred, the hot mustard-baths relieving the congested lungs and helping the over-burdened heart, after other remedies had failed to be of service.

The *modus operandi* given is that the mustard is a powerful irritant, and the hot water dilates the bloodvessels, and thus a large amount of blood is drawn to the periphery over the whole body, and the obstructed pulmonary circulation and heart's action are relieved. Again, the bath is regarded

also as a powerful excitant and stimulant of the central nervous system, respectively of the vasomotor center acting upon it by way of reflex, through irritation of the nerves at the periphery, and thus relieves the comatose condition, where camphor and carbonate of ammonia have failed,—*American Practitioner*.

ANAL FISSURES.—"Our next patient has an affection of the rectum. He is already under the influence of ether, but is not breathing freely. When the head of an etherized patient is allowed to fall too low, you will invariably find that trouble begins. The tongue naturally gravitates backward because the patient has no muscular control over it. Whenever this happens stertorous breathing will at once be heard. It will then be necessary simply to raise the patient's head. The tongue comes forward, and respiration again becomes easy. There is another condition in which an etherized patient becomes tetanic. He has opisthotonos, draws himself forcibly and convulsively backward, and his movements are spasmodic. In such a case the need is air, and the ether should be withdrawn. If he throw himself back with great force, turn him on his side, and the condition will pass off. Our patient is nauseated. After he has vomited he will go to sleep easily. He is a laboring man, and says he cannot give us more than one week in which to treat him. At stool he suffers great pain. Yesterday I hastily examined him, but am not yet fully acquainted with his trouble. What I then saw I see to-day, namely, three or four small fissures, which undoubtedly are the entire cause of his suffering. One of them is healed, and another nearly so; a third is raw and ulcerated. When the anus is stretched in the act of defæcation the fissures reopen and give intense pain, just as the cracks in the corners of the mouth during a meal.

Introducing my finger I do not feel anything abnormal within the rectum. It is probable that the trouble is confined to the margin. The method of treatment is to work the two thumbs into the bowel, grasp the tuberosities of the ischia with the fingers, and then rupture the sphincter muscle, as I have now done. The cracks have thus been widened. I now pass an Allingham speculum and examine higher up. I find nothing but this fissured condition, which is very marked, as I will show you in a moment by thoroughly stretching the rectum. The principal fissure is situated on the posterior wall. I now take the knife and lightly score the membrane, just cutting down to fissure itself. This I do in several directions. We shall keep the bowels open for a week. Aside from this, merely ordinary care is all that will be necessary.—*Boston Med. and Surg. Journal*.

EX-SURGEON GENERAL HAMMOND.—The *New York Med. Record* (March 9) says that this dis-

tinguished surgeon, to whose great ability and untiring devotion the admirable conduct and management of the Medical Department of the United States Army during the late civil war was principally due, is about to receive some reparation for the iniquitous treatment he was subjected to, by being deprived in 1864 of the high post of Surgeon-General, at which he had laboured so successfully. By the general consent of the profession in the United States, and those of its members in Europe who were acquainted with the circumstances, it was admitted that his displacement was brought about by one of those iniquitous pieces of political jobbery which has so often disgraced the United States Government; and it is certain that the estimation in which he has since been held by his professional brethren, and the distinguished career which he has pursued, could never have resulted had the charges which were trumped up against him had any foundation in fact. It is a matter of congratulation, then, that this is about to be publicly acknowledged, and a tardy, although imperfect reparation accorded. A committee of Congress has reported that it has examined with searching scrutiny the evidence adduced at his trial, and pronounces it worthless. It therefore recommends a Bill to be framed (which has since passed), enabling the President to annul the sentence then pronounced. The Bill, however, will prove a lame piece of justice, for while decreeing that Dr. Hammond shall be placed on the retired list of the army as "Surgeon-General," it adds that this shall be "without pay or allowances, past, present, or future." This is something like our fashion of granting a royal pardon to one who ought never to have been convicted.

MEDICAL EVIDENCE IN COURTS OF LAW.—In a case which is exciting a good deal of attention this week, arising out of an alleged assault upon a popular actress, Mr. Prescott Hewitt was quoted in court as having requested that other evidence than his own might be taken, as he declined to appear as a witness in court. It is well known that many other surgeons of similar position to that occupied by Mr. Prescott Hewitt, and equally solicitous of preserving professional reputation intact before the public, have for many years adopted a similar course. We do not remember to have seen, for instance, Sir James Paget, or Mr. Savory, or Mr. George Pollock, make any appearance as medical witnesses in contested cases. Of course it may be said, and will be said, that, for the purposes of justice, it is essential that expert evidence should be forthcoming; and that, if all medical men of high reputation were to adopt a similar course, the evidence forthcoming at railway and other cases would be often of a less satisfactory character than that which even now often proves the cause of much public scandal. The force of

such an observation is undoubted, and this is a consideration not to be undervalued. On the other hand, under the present unsatisfactory conditions of the taking of medical evidence in courts of law, it may be doubted whether, if practical protests of this sort were pretty universal, it would not more effectually than any other course lead to the desired reform by which expert evidence should be taken in an impartial manner for the information of the court. Certain it is that judges and lawyers alike concur in estimating, as a rule, very cheaply the sort of medical evidence which is now so frequent in courts of law; nor do they hesitate, both officially on the bench and on public occasions, and in private, to express a strong regret for the sort of conflict which frequently occurs before them, and their opinion that it does not tend to increase the respect entertained for the acquirements and impartiality of the members of the medical profession. The resolution taken, therefore, by such men as Mr. Prescott Hewitt, Mr. Pollock, and Mr. Savory, to decline to give expert evidence, is readily understood, and will meet with a good deal of sympathy; and if the example were more generally followed, although it might tend in the first instance to still greater degradation of medical evidence in courts of law, it might probably, by that very fact, ultimately lead to very salutary reform.—*Brit. Med. Journal.*

CAUSTIC APPLICATION TO THE CERVIX UTERI IN THE VOMITING OF PREGNANCY.—Dr. J. Marion Sims, considering the suggestions it contains of great importance, contributes to the *London Lancet*, a paper written by Dr. M. O. Jones, of Chicago, on the experience of the latter with the application of caustic to the cervix uteri in the vomiting of pregnancy. He believes that this vomiting is a reflex phenomenon, which fact may account for the unsatisfactory treatment of it by the stomach. Within six years he has treated successfully five cases, his plan being to excite, by means of caustic applications, an irritation or superficial inflammation of the os and cervix uteri, thus concentrating the reflex nervous phenomena at the point of irritation and thereby relieving the stomach.

In his first patient he applied the caustic to the os only. The benefit was very noticeable within twenty-four hours. Being somewhat apprehensive he applied it only sparingly, and in a few days applied it again, obtaining still greater relief. He used it the third time, but suspects the third application was really unnecessary. The patient remained free from sickness or vomiting until the end of pregnancy. In his second case he applied the caustic only twice, complete relief following the second application. In the third and fourth cases, one application was sufficient, although the fourth was one of the most harassing and persistent cases

that ever came under his care. The stomach rejected everything taken into it, and the patient grew feeble, and became so emaciated that she was scarcely able to leave her bed. The caustic was in this case applied very freely to the os and vaginal cervix. In all of his cases all the usual remedies had been faithfully tried before the caustic was resorted to.

Dr. Sims adds notes of a case occurring in his practice, in which this treatment was marvellously successful. His first application of the caustic in solution of two drachms to the ounce was followed by great improvement. At the end of five or six days there was some nausea, which was, however, not distressing. The pencilling of the neck of the womb with pure carbolic acid until it was completely enveloped in a whitish film, relieved the nausea, and the day following she was perfectly well.—*Mich. Med. News.*

POLYURIA SUCCESSFULLY TREATED BY ERGOT OF RYE.—A case of polyuria is reported by Dr. Rendu (*France Médicale*, Feb. 27, 1878) in which ergot was successfully employed. There was supraorbital neuralgia, vertigo, with loss of consciousness, excessive thirst and hunger, with emaciation and loss of strength, although the patient consumed a considerable quantity of food. The urine contained no trace of sugar; the quantity was about ten quarts a day. The urea eliminated by this means in the twenty-four hours amounted to from about 1,250 to 1,400 grains. Before having recourse to ergot of rye, tincture of valerian was first tried for this patient, in the dose of fifteen minims, and soon afterwards of half a drachm. Under the influence of this treatment, the urine diminished by nearly a quart. Sulphate of atropine, in the dose of one *milligramme* (0.15 grain) at first, then two, daily, produced a similar improvement, but no advantage was found in persevering in this course, since the appetite diminished with the valerian, and the thirst increased with atropine. Ergot of rye was then tried. The success of this agent was remarkable. In eight days the urine fell to 1,600 *gram.* and the urea to 15 *gram.* in the twenty-four hours; the emaciation was stopped, the strength returned, whilst the thirst and the excessive desire for food also disappeared. Dr. A. Costa, (*New York Hospital Gazette*, Feb. 15,) reports also a case of diabetes insipidus, with the excretion of ten pints of urine daily, without sugar or albumen, marked by a great emaciation, and states that he treated the patient with fluid extract of ergot, which treatment had been followed with striking success, *i.e.*, complete cure in two cases in private practice. Dr. A. Costa put the patient upon an initial dose of half a drachm of the fluid extract thrice daily, the dose to be increased gradually, first to one drachm, and then to two drachms. There was at once apparent great

reduction in the quantity of urine passed daily. From ten pints it fell to six pints daily, then to three, where it remained. Even before reaching the present limit, he ordered the dose to be gradually reduced, first to one drachm, and then to half a drachm. Then it was stopped altogether, and mint water substituted in its place. For the past two weeks he had no ergot, and might be considered permanently cured. The amount of urine daily passed varied between two and three pints.—*British Medical Journal.*

TURPENTINE IN WHOOPING-COUGH.—Dr. Albrecht Gerth cured a case of laryngeal catarrh by inhalations of oil of turpentine. Twenty drops were placed on a handkerchief, held before the mouth and nose, and about forty deep inspirations taken. This was done thrice daily, and the cure was quite rapid. In the same family he found a child fifteen months old, with pertussis in the convulsive stage. The infant was quite exhausted and vomited almost all nourishment. There was at the same time some bronchial catarrh, with slight nocturnal elevations of temperature. Its constitution was scrofulous. Gerth decided to experiment here with the turpentine. He overcame the difficulty of administration by getting the mother to hold the moistened cloth before it during its waking hours, and to drop the oil upon its pillow while asleep. The result exceeded all his anticipations. Before the termination of twenty-four hours, the frequency and severity of the attacks had perceptibly diminished. The strength of the child was sustained by cognac and champagne, and he ordered that for five minutes of every hour the doors and windows of the room should be widely opened. The improvement was so evident, and so rapid, that these instructions met with but little resistance on the part of the parents, although they were not of the intelligent class.

This experiment was first tried over a year ago; last spring and in autumn pertussis was again epidemic in his neighborhood, and he had repeated opportunities of testing this agent. He gave it to children of all ages, and in all stages of the fever. The initial catarrhal, the convulsive and the terminal catarrhal stages were all decidedly benefitted, the spasmodic attacks being in many cases aborted.—*Allgemeine Wiener Medicinische Zeitung*, No. 12, 1878.—*Clinic.*

CATGUT SUTURES IN CÆSARIAN SECTION.—Translated by Dr. A. Kaiser, from an article in *Archives de Tocologie et Malades des Femmes*, by Dr. E. W. Jenks, of Detroit.—In my article (referring to the report of a successful case of Cæsarion Section, published in the December number of the same journal), I maintained the idea that I preferred the gut cord or the silver wire to all other material for uterine sutures, but in the

absence of both I would employ silk or even linen thread rather than use none at all; and subsequently I made allusion to substances equally harmless as the gut cord, the silver wire, etc., thus giving preeminence to the gut cord. Since the article was written I have changed my opinion with regard to employing the gut cord as a ligature in the peritoneal cavity. Theoretically it is the best material on account of its unhurtful character and prompt absorption, but practically it will continue to be an indifferent suture until some one has discovered a method of keeping it well secured, for the warmth and humidity of the peritoneal cavity relaxes and opens the common surgeon's knot. I have employed it in a case of ovariectomy to tie the vessels, and the post mortem examination has but too well proven the truth of my last assertion. I have likewise used it during the past few months on several occasions in plastic operations in the vicinity of the vagina, and in each case, expecting that it would keep the parts in apposition, the result was nevertheless a complete failure. Now, since the only object of uterine sutures in Cæsarian section is to maintain the incised partition walls in contact, to prevent liquids from entering into the uterine and peritoneal cavities, such material only should be employed in cases of this kind, as can be invariably relied upon.

I see by an article, written in an English journal by a writer whose name I cannot now recall, that he claims to have invented a way of making a knot with gut cord, which would neither slip nor untie. I have not tried his method, nor am I disposed, on account of my previous experience, to make my first application with it to the abdomen. It would appear that up to the present time we are possessed of nothing superior for uterine sutures to silver wire and silk thread, and of those two the former is probably the best.

As to the little confidence we can have in gut cord for uterine sutures, I would refer you to the transactions of the London Obstetrical Society, vol. xvii, where a case of Cæsarian section is recorded by Dr. Oswald; the operation was made by Dr. Routh, who closed the wounds of the uterus with sutures of the best gut cord, firmly tying the same. The patient lived three days after the operation. The post mortem examination revealed that the knot was relaxed and opened, so that a quantity of liquid escaped into the abdominal cavity, poisoning the patient.

The opinion of Dr. Routh coincides with that of the majority of his colleagues, that had he used sutures of metal or silk, instead of the gut he could have saved the life of the patient. Dr. Meadows adds, that it was the second case in which death could be attributed to the use of gut cord sutures on the uterus.—*Mich. Med. News*, June 1878.

THE ANIMUS OF SUITS FOR MALPRACTICE.—Of the many suits for malpractice that have come

under our observation, we have scarcely ever known of one which did not exhibit on the part of the prosecution, a baseness of motive, and an absence of honor thoroughly disgraceful to the human character. Nine times in ten the plaintiff is a pauper who has received the gratuitous service of the man whom he prosecutes; or worse than a pauper, a sordid villain, who resorts to the expedient to evade payment, or as a business speculation. There is always a ring, which is completed by one or more jackals of the law, who are prompt to instigate litigation for the purpose of plunder, and one or more medical witnesses of the sneaking and malicious type.—*The Pacific Medical and Surgical Journal*.

NEW USES OF BELLADONNA.—We cannot too frequently direct the attention of the profession to the invaluable action of atropine, or belladonna in night sweats, so prevalent and prostrating a symptom in case of debility and in consumption. We have used it in the form of powders of atropia $\frac{1}{10}$ gr. with sugar or $\frac{1}{4}$ to $\frac{1}{2}$ gr. solid extract, in pill form or 10 to 20 minims of the tincture answers equally well. We have found the following formula almost a specific in phthisical cases with troublesome coughing:

R Atropia sulph. grs. i

Morph. sulph. grs. viij

Acid sulph. aromat ʒij

Aquæ menth pip ad ʒi M.—Dose—5 drops thrice daily, and at bedtime. The morphine and acid may be omitted, and in sore throat giving rise to coughing, nitric acid may be substituted for the sulphuric with advantage in five drop doses.

The tincture is being used with advantage externally in night sweating. Mr. Nairne writes in the *British Medical Journal* of February 2, that for some little time past he has employed the common pharmacopœial tincture of belladonna for sponging the body in cases of phthisical and excessive sweating, and invariably with marked benefit. So far as his experience goes, he has found it much better than anything else; if applied before a sweating comes on, it prevents it; if during the sweating, it almost immediately controls it. Two teaspoonfuls of the tincture mixed with an equal quantity of whiskey are quite sufficient (applied with the hand), to cover the whole body and produce the desired effect.

LACTOPEPTINE. — Pepsin is unquestionably a valuable remedy in some cases of indigestion, but does not seem to meet all the requirements of many dyspeptic cases. Lactopeptine is presented to the profession as meeting all the indications in cases of mal-nutrition and non-assimilation, composed according to the formula, of Ptyalin, Pepsin, Pancreatine, Hydrochloric and Lactic Acids. It is

claimed to be a combination of all the digestive agents. If we can prescribe chemically for disorders of the digestive function, such a combination would appear worthy of trial, and experience has demonstrated its value in many cases. Dr. Merritt remarks: "The more my experience in its varied applicability extends, the more its beneficial effects appear."—*Buffalo Medical and Surgical Journal*, Dec. 1877.

EARLY PUBERTY.—Dr. H. Yates, of Kingston, Canada, reports the following extraordinary case of early puberty in the *London Lancet*: "The child, a female, is two years and three months old. I was consulted by the mother, who supposed it had some mammary disease, there being a symmetrical enlargement of both glands. Struck by their appearance, I had the child stripped, and found what appeared to be a fully-developed woman! Abundance of hair on the pubes and in the axillæ. The genital organs, as well as the mammæ above mentioned, seemed to be fully developed. For the last three months the child had menstruated regularly three days every four weeks. She was flushed, and complained of headache and pain in the back and thighs while menstruating. She weighed forty-eight pounds."

HEAT OF THE BRAIN.—The *Lancet* tells us that M. Broca has recently laid before the French Medical Association some curious facts concerning the temperature of different parts of the skull. By numerous experiments he has found that while at rest the temperature of the surface of the head is .2° Fahr. higher on the left side than on the right. When the brain is active, equilibrium is established. When continuous but moderate mental effort has been maintained for ten minutes the temperature is raised about 1° Fahr. The temperature of the frontal, temporal and occipital regions of the skull are also different, that of the frontal region being more than 4° Fahr. higher than that of the occipital. —*Chemist and Druggist*.

GALVANIC AND FARADIC CURRENTS IN NEURALGIA.—As a guide to the proper current indicated in the various forms of neuralgia, Dr. Rockwell says: "I find the effects of pressure are exceedingly useful. I would not lay it down as a law, but it will be found in the great majority of cases of neuralgia where firm pressure over the affected nerves aggravates the pain, the galvanic current is indicated, while the Faradic current has the greater power to relieve, when such pressure does not cause an increase of pain."—*Med. & Surg. Brief*.

RELATIVE DANGERS OF VERSION AND FORCEPS.—A Belgian writer, Dr. Kuborn, has examined the recent statistics of the Russian hospitals, to deter-

mine the relative dangers to the infant of deliveries by version and by the forceps. He has collected the respectable number of 7,100 cases of labor where one or the other method was used. The results are in favor of the forceps. They showed a mortality of but five per cent., while version was followed by the death of the infant in eight per cent. of the cases.—*Med. & Surg. Reporter, Phila.*

A DECEPTIVE PATIENT.—A story is told in the *Revue Médicale de l'Est* of a patient who lost his life by deceiving his doctor. The man was suffering from lead-poisoning. The physician, oddly named Professor Forget, prescribed strychnia pills, which produced no effect. The dose was increased successively to two, three, five and six pills, without any result. Finally the doctor ordered the patient to take five pills in his presence. The man did so, and died within two hours. After his death all the pills previously prescribed were found secreted behind his bed.

A MILK TEST.—A German paper gives a test for watered milk, which is simplicity itself. A well-polished knitting needle is dipped into a deep vessel of milk, and immediately withdrawn in an upright position. If the sample is pure, some of the fluid will hang to the needle; but if water has been added to the milk, even in small proportions, the fluid will not adhere to the needle.

CHLORAL IN RETENTION OF THE URINE.—Tidd noted a case in which catheterism having failed in consequence of the patient being pregnant, and no urine having passed for twenty-four hours, two doses of ten grains of chloral, one half an hour after the other, produced profound sleep and voluntary passage of an enormous quantity of urine.—*Gazette Med. de Rome*.

SEWER GAS.—Among many disorders which may arise from the effluvia of drains and sewers, two have been recently mentioned in the English journals for the first time, viz: abscess of the cervical glands, and a tendency on the part of ulcerated surfaces to become sluggish and to yield to no ordinary management. Sometimes these ulcers take on a diphtheritoid appearance.

ERGOT IN CARDIAC DISEASES.—Massini recommends ergot in simple hypertrophy and cardiac degeneration, when digitalis administered for some time produced no effect. In valvular troubles ergot appears to have but little effect. He prefers the preparation obtained by maceration.—*Med. Med. Four.*

OVARICTOMY in a child of eight years was recently performed with success by Spencer Wells.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science

Issued Promptly on the First of each Month.

Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. McMILLAN, St. John. N.B.; Dr. C. W. BERNACKI, 271 W. 22nd St., New York; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER, 16 Rue de la Grange Bateliere, Paris.

TORONTO, NOV. 1, 1878.

AN ANIMATED MOLECULE.

We are indebted to the talented author, Dr. Daniel Clarke Medical Superintendent of the Lunatic Asylum, Toronto, for a copy of the above interesting *brochure* of 42 pages, which we doubt not have cost the writer much earnest thought and extended research. Were we as well versed in metaphysics as we are led to believe Dr. Clarke is, we should be better able to review his production in terms befitting its merits; but, perhaps to our shame, we must confess, that though we have often tried to possess ourselves of some degree of competency in this branch of science, we have almost invariably retreated from the enterprise, with the blushing conviction that our mind was never designed for this sort of work, just as *Burns*, dumb-founded and bedizened, in contemplation of the *Alloway* witch scene, was forced to collapse, in the hapless lines:

"But here my Muse her wing maun cour,
Sic flights are far beyond her power."

So we, confronted with the *ego* and the *non-ego*, the *objective* and the *subjective*, the *conditioned* and the *unconditioned*, *et hoc genus omne* of writers on this transcendent department of philosophy, have ever been constrained to own ourselves utterly impotent. Even since we read Dr. Clarke's pamphlet, we made some effort to qualify ourselves for the duty of understanding a portion of his ingenious argument, by searching for a clear exposition of the radical terms *the ego*, and *the non ego*, and we thought we could not seek for what we needed in a better author than the renowned Sir William Hamilton, the Samson of "Common Sense." Here was what we found in the wondrous treatise of this philosopher, in elucidation of the *self* and *not self*, alias *ego* and *non ego*.

"Whatever comes into consciousness, is thought by us, either as belonging to the mental self, exclusively (subjectivo—subjective,) or as belonging to the non-self exclusively, (objectivo—objective,) or as belonging partly to both, (subjectivo—objective.) It is difficult however to find words to express precisely all the complex correlations of knowledge. For in cognizing a mere affection of self, we objectify it; it forms a subject object, or subjective object, or subjectivo-subjective object: and how shall we name and discriminate a mode of mind, representative of and relative to a mode of matter?"

Well, now, if our reader stands enlightened by the preceding agglomeration of subjective objects, and objective subjects, all we can say is that he is an apt scholar, and we congratulate him on his facility of comprehension; but at the same time we are very much inclined to regard the metaphysical *ego* and its negative as very nearly "all in my eye."

Dr. Clarke tells us, "it," (the *ego*) "is a substance more subtle than the ether which pervades all nature." Who, after reading Hamilton's above cited explanation, will for a moment doubt the subtlety of the artful dodger? It must be "the highest development of that entity called magnetism," for it certainly magnetises, and mesmerizes likewise, all who approach it. Why! it must be one of the staff of that master spirit, which has been styled "the prince of the power of the air," and everybody knows what an uncanny metaphysician he is. Let no one wonder then, that we take our leave rather precipitately of this part of Dr. C's essay, yet we must be pardoned for this expression of our doubt, as to the efficiency of Dr. C's vindication of the non-materiality of mind: for ultimately to assume, that this entity is but a super-refinement of magnetism, comes, in our interpretation of language, so very near to materialism, that we fail to realise the difference, though we are perfectly sure that any such conclusion must be utterly antagonistic to Dr. C's convictions.

We could very much have wished that Dr. C. had seen his way clearly through his subject, so as to have avoided the metaphysical obscurations which intrude between our dull optics, and a distinct understanding of his ingenious arguments; for we confess that we have an almost never failing admiration of everything that comes from his gifted pen; and what is still more and better, we

have the very highest respect for the honesty and purity of purpose which actuates him in all undertakings, and upon all occasions. We do not hesitate, therefore, to recommend to all our readers, but especially to such as are gifted with higher metaphysical competency than we dare pretend to, the careful perusal of the *animated molecule*. None can fail to be surprised at the amount of powerful writing, with which a talented author can envelope so minikin a thing. How many volumes, in like proportion, should be devoted to a whale, or a megatherion? After all, what stronger proof outside of Divine revelation, can we have of the existence of our soul, than our own simple conviction?

—THE GREAT SYMPATHETIC.

We have just risen from a perusal of an interesting monograph by Dr. Bucke, Superintendent of the Asylum for Insane, London, Ont., on "The Moral Nature and the great Sympathetic."

The office of the numerous ganglia, placed in the course of the sympathetic nerves is perhaps the most obscure point in the whole range of physiology. Some have regarded them as so many brains, by which impressions are received through the branches, of which each ganglion is the centre, and from which, excitements to motion are sent out; others have believed that they exercise a power of isolating the organs they supply from the influence of the mind, or of obstructing the constant passage of impressions to and from the brain. Many other functions have been supposed to be performed by them. Dr. Bucke considers them to be the especial channels of the emotions. The sympathetic nerve or system of nerves, has received its name from the idea that it is of ultimate importance in the phenomena of what is called sympathy, in which one part of the body is affected in consequence of some peculiar condition of another. A great number, however, of the phenomena, formerly regarded as the effects of sympathy are now clearly explained by reflex action of the cerebro-spinal axis; many others depend on some generally operating influence as a peculiar condition of the blood, &c., &c. Dr. Todd in his physiology remarks, "Two questions are to be solved. 1st Is the sympathetic a distinct and independent portion of the nervous system or is it

merely an off-shoot from the brain and spinal cord, exhibiting certain peculiarities of arrangement. 2nd. Do its fibres exhibit the same powers as those of cerebro-spinal nerves, that is are they sensitive and motor?" That the organs chiefly supplied with the sympathetic nerves are entirely independent of the cerebro-spinal system, and will maintain their actions for a time even after removal from the body, there is no lack of evidence. The peristaltic motions of the intestines, the contractions and dilatations of the heart of some animals—tortoise especially—will continue for a long time after their removal from the body, or after all the nerves passing to them have been divided. To the second question we reply that numerous experiments of irritating the ganglia of the sympathetic, to see whether it produces pain, have had unsatisfactory results. Nor would any results be conclusive, because the ganglion like parts of the brain might be insensible to injury, though fully capable of perceiving the impressions transmitted to them through their nerves. The pain of the diseases of internal organs is amply sufficient to prove their sensibility, though it does not determine whether the impression of pain is conveyed through filaments of the sympathetic system or through those few of the cerebro-spinal system which are mingled with the former in the common sheath. Dr. Bucke in his first paper on the sympathetic, read before the Association of Medical Superintendents of American Institutions for the Insane, held at St. Louis Mo. in May 1877, puts five questions, 1st. Is it a motor nervous system, if so; in what sense? 2nd. Is it endowed with sensation? 3rd. Does it control the functions of the secreting glands, as the gastric, mammary, intestinal, salivary, lachrymal, liver, kidneys and pancreas? 4th. Does it influence the general nutrition of the body, and if so, in what manner? 5th. Is it the nervous centre of the moral nature, that is of the emotions? To the first he adduces evidence in support of the great sympathetic being a nerve of motion to unstriped muscular fibres, the exception, being the circular fibres of the iris, supplied by the third cranial nerve. To the second question, whether it is sensory, he answers in the negative. To the third he argues from instances quoted, that the great sympathetic can, and does, exercise a controlling influence over the secretion of glands which receive no other nerves, such as the kidneys. That,

as it is at least equally distributed to other glands which receive cerebro-spinal nerves, and no other function appears for it to perform, it influences the secreting functions also. That the testes are supplied with cerebro-spinal nerves, whilst the homologous organs in the female are not. That cerebro-spinal nerves, when sent to glands have another obvious function to perform, besides that of controlling the secretions of those glands, and that it is consequently unnecessary to suppose that they do this likewise. 4th. In support of the belief that the sympathetic does influence the general nutrition of the body, Dr. Bucke thus argues: "The nutrition of paralyzed limbs though not up to par on account of want of exercise, is still pretty well kept up; while if those limbs could be deprived of sympathetic nervous influence, instead of cerebro-spinal influence, we have reason to believe that their nutrition would fail absolutely, and that they would die. All arteries are accompanied by sympathetic nerves, besides which, there are without any doubt, as pointed out by Davey, in his work on the great sympathetic, hundreds of minute sympathetic ganglia scattered among the tissues and organs of the body, which send filaments to parts in the neighborhood of each of them, so that the distribution of the great sympathetic nerve, is probably, absolutely universal, while the distribution of the cerebro-spinal system is far from being so." 5th. That the sympathetic is the nervous centre of the moral nature, that is of the emotions. For our readers to be enabled to grasp fully Dr. Bucke's reasons for the opinion, that the moral and intellectual nature are essentially distinct from one another, we must refer them to his two papers on the subject; the first in the October number 1877 of the American Journal of Insanity; the second read before the Association in May, 1878, and published by Ellis, Roberts & Co., Utica, N. Y. They may not agree in every view of the author, but they will certainly read the papers with pleasure, and consider them to be possessed of great merit. Our space is too limited to permit a disquisition upon dogmas, that might by some be viewed as arbitrary, and as a new departure from previously recognized views of the indivisibility of the moral and intellectual natures as centered in the cerebro-spinal system.

THE FEVER SCOURGE.

A correspondent sends us the following:—It is a mistake to suppose that the present fever scourge raging in the South is the most severe that has ever been known to our neighbors. In former years it was much more severe than it is at present. Take new Orleans alone, and up to the present we find that there have been a little more than three thousand five hundred deaths, and the maximum deaths, we find, has been 103. But if we go back to 1853, we find that there was as many as 250 deaths in a single day. During the month of August in that year there were, on an average, 180 deaths daily, and this too when the population was only 80,000, much less than it is at present. Out of this 80,000 it is reported that 20,000 died during the season, a mortality which is far in excess of that of the present time. The sanitary regulations of New Orleans are still very defective. The ground is low and swampy, and we must attribute the existence of the disease in 1853 to the then bad drainage. But worse than this took place at Barbadoes in the year 1647. This is the earliest notice we have of yellow fever, and we find it in "Legon's History of Barbadoes." He tells us that in that year, before the expiration of a month, "the living were scarcely able to bury the dead," Again, in 1793, the yellow fever destroyed no less than 6,000 men of the garrison of Port Royal in the course of a few months. In 1804 the yellow fever was brought to the South of Spain, and visited Cadiz, Malaga, and Carthagen. In the same year it destroyed more than one-half of the population of Gibraltar, for out of a population of 14,000 souls, only twenty-eight escaped attack. In 1793—there were 3,500 people died of yellow fever in New York, when it had only a population of 50,000, and in 1822, about 200 people died of the same disease in the same city.

It is consolatory to know that the present scourge is nearly at an end.

STRYCHNIA AND ITS ANTIDOTE.

A correspondent in an exchange says: Wanting to banish some mice from a pantry I placed on the floor at night a slice of bread spread over with butter, with which I had mixed a three-penny packet of "Battles Vermin Killer," which contains

about a grain of strychnia along with flour and Prussian blue. The following morning I was roused by a servant telling me that a favorite Skye terrier was lying dead. I found that the mice had dragged the slice of bread underneath the locked door, and that the dog had thus got at it and eaten part equal to about one-sixth of a grain of strychnia; it lay on its side perfectly rigid; an occasional tetanic spasm showed that life was not quite extinct. Having notes of the experiments made by direction of the British Medical Association last year on the antagonism of medicines, and wherein it was conclusively proved that a fatal dose of strychnia could be neutralized by a fatal dose of chloral hydrate, and that the minimum fatal dose of the latter for a rabbit was twenty-one grains, I at once injected under the dog's skin forty-five grains of the chloral in solution, my dog being about twice the weight of a rabbit. In a quarter of an hour, fancying the dog was dead, as the spasms had ceased and it lay apparently lifeless, I moved it with my foot, when it at once struggled to its feet, and shortly after staggered to its usual corner by the parlor fire; it took some milk, and except for being quieter than usual, seemed nothing the worse for the ordeal it had passed through. That the fatal effects of a poisonous dose of strychnia were thus counteracted so successfully by what I should say was a poisonous dose of chloral, given hypodermically, is an interesting fact verifying the experiments I alluded to. Without such experiments on the lower animals, a medical man might often be found standing by, helpless to aid his fellow-man under similar effects of poison.

PRIZE FOR ESSAY ON HYDROPHOBIA.

A prize of one hundred pounds sterling has been offered for the best essay on "Hydrophobia, its Nature, Prevention and Treatment," by V. F. Bennett Stanford, Esq. M.P., to be awarded by the Royal College of Physicians, London, England. The prize is open to any one who chooses to compete for it. The conditions are as follows: (1) The Essay must be in English, or accompanied by an English translation. (2) The Essay must be delivered to the College on or before January 1st, 1880. (3) Each Essay to be accompanied by a sealed envelope, containing the name and address of the

author, and bearing a motto on the outside. The same motto to be inscribed on the Essay. (4) The Essay may be the joint production of two or more authors. (5) The Essay if not published by the author within a year, to become the property of the College. (6) The Prize not to be awarded unless an Essay of sufficient merit be presented.

The questions which are thought by the College specially to require investigation are: (a) The origin and history of outbreaks of Rabies, particularly in the United Kingdom and its dependencies. (b) The best mode of prevention of Rabies. (c) The characteristics of Rabies during life, the anatomical, and chemical changes which are associated with the disease in its successive stages, particularly in its commencement. (d) The origin of Hydrophobia in man. (e) The chemical and anatomical morbid changes observed in the subjects of the disease, with special reference to those having their seat in the organs of the nervous system, and in the salivary glands. (f) The symptoms of the disease particularly of its early stages as illustrated in well observed cases in its commencement. (g) The diagnosis of the disease in doubtful cases, from conditions more or less resembling it. (h) The alleged prolonged latency of the malady. (i) The efficacy of the various remedies and modes of preventing the disease, which have been proposed, and what plan of treatment, whether prophylactic or curative, it would be most desirable to recommend for future trial.

MANITOBA AS A HEALTH RESORT.

The climate of Manitoba—the new Province of the Dominion—seems in its dryness and general salubrity especially adapted to the necessity of persons troubled with bronchial affections and incipient phthisis. The water of the Red River is strongly alkaline, so that persons new to that district are somewhat troubled to make use of it. Several cases of debilitated health from incipient lung and heart affections, have been completely restored to health by a sojourn of two or more years in Manitoba, and the North-west, and while we are unable from lack of sufficient data, to particularise or discuss the *pros* and *cons* in detail, yet, nevertheless, sufficient information has come to our knowledge to confirm us in the opinion

that the climate of Manitoba and the North-west, offers signal advantages to the invalid, and especially to sufferers from incipient constitutional affections of any kind.

We trust ere long to have valuable communications upon this matter from resident physicians in the district, of long experience, which we will lay before our readers.

COLLEGE OF PHYSICIANS AND SURGEONS, QUEBEC.—The semi-annual meeting of the Governors of the above named college took place at Quebec, on the 25th Sept. The following were present: D. J. P. Rottot, President; C. E. Lemieux and R. P. Howard, Vice-Presidents; A. G. Belleau and A. Dagenais, Sec's; L. La Rue, Registrar; J. A. Sewell, E. A. De St. George, W. Marsden, M. J. Ahern, P. Wells, F. W. Campbell, E. H. Trudel, A. H. David, E. P. Lachapelle, A. T. Michaud, J. Marmette, L. Tetu, C. Gingras, L. J. E. Rousseau, P. A. A. Collet, J. B. Gibson, J. Prevost, A. Rivard, L. D. Lafontaine, E. Laberge. Hon. A. H. Paquette, F. X. Perrault, P. E. Mignault, N. H. Ladouceur, Hon. J. J. Ross, M. G. E. Badeaux, F. D. Gilbert and F. Paré. Drs. W. E. Scott, of McGill College was appointed a Governor in place of Dr. Fenwick, resigned; E. Ives, of Coaticook, in place of Dr. Worthington, resigned; and H. St. Germain, of St. Hyacinthe, in place of a member deceased. Dr. E. P. Lachapelle was appointed Treasurer.

The following graduates received the license to practice on presentation of their degrees: A. Noel, M.L., E. Morin, M.L., A. Vincelette, M.L., J. E. Bolduc, M.L., A. Methot, M.D., H. Sirois, M.D., A. Watters, M.D., A. Gauvreau, M.L., H. Trudel, M.L., L. O. M. Bellemare, M.L., P. P. Delaney, M.L. of Laval University; and J. McKinley, M.D., C.M., and C. N. Stevenson, M.D., C.M., of McGill University. Messrs. C. M. Draper and L. H. Annable passed a most successful examination and obtained the license.

The following examiners were appointed for next meeting:—*Anatomy*, Dr. C. E. Lemieux; *Surgery*, F. W. Campbell; *Med. Jurisprudence*, F. Paré; *Physiology*, E. P. Lachapelle; *Medicine*, F. D. Gilbert; *Materia Medica*, L. J. E. Rousseau; *Midwifery*, E. H. Trudel; *Botany*, M. G. E. Badeaux; *Hygiene and Chemistry*, M. J. Ahern.

Candidates for the next preliminary or matricu-

lation examination can apply for information to Dr. Howe, Montreal High School, Rev. Mr. Verreault, Montreal Jacques Cartier Normal School, Rev. Dr. Laflamme, Quebec Seminary, and Prof. M. Miller, Quebec High School.

MINERAL WATERS.—The prescribing of mineral baths and waters forms, at the present day, a prominent feature in medical practice, but from the number of springs with which the land is blessed, it is sometimes perplexing to make a proper selection. The Caledonia Springs, however, situated between Montreal and Ottawa, near the Ottawa River, have taken a prominent position, and from their long use, their properties have become thoroughly known and appreciated by the profession at large. The white Sulphur water, here, while of a superior character, is greatly aided by the other saline waters beside it, making the curative qualities cover a wide range of diseases. The complete recovery of many visitors to these Springs is really wonderful, especially in cases of rheumatism, dyspepsia, blood and skin affections, and diseases of the liver, kidneys, bladder, &c. The Grand Hotel offers the best accommodation, but every class of visitors is well provided for. The season is from June to October.

A WOODEN MAN.—A lay figure, the counterfeit presentment of a man, which is being exhibited in Brussels, is described by a London correspondent as by far the most remarkable invention of the kind which the world has yet produced. It is by a Frenchman named Fabre, who has spent twenty years in getting it up. The figure has organs of speech corresponding to the human, and in the rear a set of keys to be played upon for producing a very good imitation of human articulation. Whether called a piano-man, or a man-piano, we are not informed. The writer adds: "This talking Psycho can, in fact, carry on a conversation; and the movements of its mouth are so like nature that the machine is to be used for teaching the deaf and dumb how to carry on a system of speech by imitating the lip movements of the talking figure.

A NEW BATTERY.—The *Boston Journal of Chemistry* says that an Italian professor has devised a new battery, based on a fact forgotten hitherto, though known to science—that of the dissolving of zinc in a solution of sulphurous acid, without the

least development of hydrogen. His battery, made on this principle, is said to act excellently, and to give a very strong current. The inventor calls attention to a curious phenomenon observed in the course of his experiments. When the zinc plate is immersed, either in a solution of sulphurous acid or in one of bisulphite of potash and soda, the liquid is observed to lose color at first, then become for a few seconds of the same colour as a solution of bichromate of potash; this coloration commences at the zinc, and is diffused in the mass, as if absolutely independent. No salts of zinc are known to give such a colour.

CORRECTION.—In our report of the proceedings of the Canada Medical Association, it is stated that a "motion was passed that in future, all papers be read before the discussion takes place, Dr. Canniff, objecting." The facts are,—Dr. Bucke suggested that it would be desirable to have all the papers on the programme read before discussion on any took place. Dr. Canniff, disagreed, and the matter dropped.

The death of Dr. W. L. Atlee, of Philadelphia, from cancer of the stomach is announced in our exchange Journals. He was 71 years of age. He was a great advocate of ovariectomy, and has left behind him a work on that subject which embodies his own experience in upwards of three hundred cases.

JOURNALISTIC.—The *Cincinnati Lancet and Observer* and the *Cincinnati Clinic* have been consolidated under the name of the *Cincinnati Lancet and Clinic*. It is issued weekly and is one of the best journals published in the United States.

The *Ohio Medical and Surgical Reporter* has been discontinued.

Sir Robert Peel, speaking of Lord Eldon, said that even his failings leaned to virtue's side, upon which a bystander observed that his lordship's failings resembled the leaning tower of Pisa, which, in spite of its long inclination, had never yet gone over.

PROFESSOR SCHWANN, author of the cell theory, is teaching physiology in the Belgian University. A festival was held lately at Liege, in honor of the fortieth anniversary of his professorship.

Dr. Demartigny, Government Inspector of Prisons and Asylums, Quebec, has been engaged on a minute inspection of the Beauport Asylum.

REMOVALS.—Dr. Philp of Waterdown, has removed to Hamilton. Dr. S. E. McCully of Morpeth, has removed to Waterdown.

Dr. Dupuis, of Kingston, has been delivering to the teachers in training at the Frontenac Model School, a course of lectures on "Hygiene."

CORONER.—S. E. McCully, M.D., of Waterdown, to be an Associate Coroner for the county of Wentworth.

Reports of Societies.

MICHIGAN STATE BOARD OF HEALTH.

The regular quarterly meeting of this board occurred July 9th, 1878, at Lansing, all the members being present as follows: Dr. R. O. Kedzie, President, Dr. H. O. Hitchcock, Dr. H. F. Lyster, Hon. L. Roy Parker, Rev. D. C. Jacobes, and Henry B. Baker, Secretary.

The subject of a text book on hygiene for common schools was discussed. No members of the board had seen a book suitable for such use, and it was thought very desirable that one be prepared. Dr. Hitchcock then offered the following resolutions, which were adopted:

Resolved, That this board respectfully request the board of regents of the University of Michigan and the Trustees of the Detroit Medical College to establish in their respective institutions, at the earliest practicable moment, full chairs of public hygiene and fill the same with thoroughly competent professors.

Resolved, That this board respectfully request the controlling boards of all the collegiate institutions as well as the high-schools of the state to see that a course of instruction in public hygiene be given in each of their several institutions.

Dr. Lyster mentioned that in the interests of public health he had delivered a course of lectures before the medical class at the University of Michigan during the past six months. He presented a syllabus of each lecture delivered.

Dr. Kedzie presented some results of his investigations on the subject of lead poisoning by the use of tinned ware and other vessels containing lead.

The subject of Sanitary Conventions was considered, and after some discussion in regard to the

kind of subjects to be treated, and their mode of treatment, it was voted to hold such a convention at Coldwater, Mich., during the coming winter, being invited to do so by Dr. J. H. Beech of that city. The Secretary was directed to make the necessary preparations.

Invitations were also received to hold Conventions at Pontiac and Detroit, from Rev. D. C. Jacobes and Dr. Lyster, who on behalf of the citizens of their respective cities, promised active efforts for the success of such meetings.

One interesting feature of these meetings is the exhibition of all sorts of sanitary appliances, a kind of sanitary fair where all interested can exhibit or examine articles designed to meet the wants of the people in their efforts for public and private health.

Books and Pamphlets.

ZIEMSSSEN'S CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. New York: Wm. Wood & Co. Toronto: Willing & Williamson.

We are in receipt of three volumes of this great work. Vol. VIII on "Diseases of the Chylopoietic system; Vol. XIII, Diseases of the Nervous System; and Vol. XVII, Disturbances of Nutrition and Poisons. The translation from the German of these elaborate treatises, now approaching completion, will supply a great want in our medical literature. It is true that we possess a mass of valuable works from English and American authors, on the Theory and Practice of Medicine, replete with careful observation and clinical instruction, and which for the student and busy practitioner, contain all the information that ordinarily is required. In Germany, however, superior means for carrying on anatomical and pathological enquiries have long existed. These opportunities Dr. Ziemssen and his collaborateurs have most diligently availed themselves of, and as a result, have presented to the medical world a Cyclopædia, remarkable for the deep research, great variety, and importance of the subjects treated of. The various translators have executed their task admirably, and the publishers have spared neither pains nor expense in furnishing volumes remarkable for neatness of binding and beauty of paper and type.

Volume VIII treats of the "Diseases of the Chylopoietic system," with chapters relating to

diseases of the bladder and urethra, and functional affections of the male genital organs; the various contributors being Prof. F. A. Zenker of Erlangen, Prof. H. Von Ziemssen of Munich, Prof. Mosler of Griefswald, Prof. Friedreich of Heidleberg, Dr. Merkel of Nurnberg, Dr. Bauer of Munich, Prof. Lebert of Vevay, and Dr. Curschmann of Berlin. The subjects treated of are diseases of the œsophagus, peritoneum, spleen, pancreas, bladder, suprarenal capsule, urethra, and male genital organs.

Vol. XIII is devoted exclusively to "Diseases of the Spinal cord, and Medulla Oblongata," by Prof. Erb of Heidleberg. The first one hundred and fifty pages are devoted to an anatomical and physiological introduction to general symptomatology and etiology. Diseases of the membranes of the cord are then taken up, afterwards those of the spinal cord proper *e.g.* hyperæmia, anæmia, spinal apoplexy, wounds of the cord, concussion of the cord, spinal irritation, spinal nervous weakness, slow compression of the cord, myelitis acute and chronic, myelomalacia or softening of the cord, multiple sclerosis, characterized by the development of numerous insulated sclerotic nodules, varying in size and of a chronic, inflammatory nature, scattered irregularly throughout the entire cord, and usually also throughout the entire brain, a disease of youth and middle age; tabes dorsalis or grey degeneration of the posterior columns,—the progressive locomotor ataxy of Duchenne, spasmodic spinal paralysis, the sclerosis of the lateral columns of Charcot, the main symptoms being paresis and spasm, hemiplegia and hemi-paraplegia spinalis, including traumatic injuries, inflammation, compression, sclerosis, tumors and syphilis; polio-myelitis anterior acute, or acute inflammation of the grey anterior columns, first described by Jacob Von Heine, subsequently confirmed by Cornil, Prevost, Vulpian, Lockhart Clarke, Charcot, and others, and polio-myelitis anterior chronic, or chronic inflammation of the grey anterior horns, first pointed out by Duchenne. The latter disease is associated with complete flaccidity of the muscles and loss of their reflex excitability, followed by rapidly progressive atrophy in the bulk of the paralyzed muscles. Acute ascending paralysis described by Landry in 1859, is clinically characterized by a motor paralysis generally beginning in the lower extremities, and spreading rapidly over the trunk to the upper extremities.

Men are most frequently attacked. Of the sixteen cases collected by Levi, only four were in women. Secondary degeneration of the spinal cord, diseases of the brain, descending secondary degeneration of the pyramidal tracts, the diseases of cord itself, and peripheral nerves, are all of them well illustrated. Deformities and malformations of the spinal cord, are also treated of; *e.g.* absence, imperfect development, and duplication of the spinal cord, anomalies in length and thickness, congenital enlargement of the central canal in the spinal cord, abnormal accumulation of fluid within the cavity of the dura mater, in connection with a greater or lesser degree of alteration of the vertebral column, constituting what is called *spina bifida*,—sclatatory spasm from increased reflex irritability of the spinal cord, intermittent spinal paralysis, toxic spinal paralysis from poisoning by carbonic oxide, sulphide of carbon, tobacco, camphor, ergot, absinthe, mushrooms, also the severe acute paralysis of nervous system, evoked by opium, belladonna, strychnia, and paraplegia dependent on idea, first related by Russell Reynolds, and since met with by Prof. Erb. Forty-two pages are devoted by Prof. Erb, to the anatomical and physiological introduction to diseases of the medulla oblongata. He then treats of hyperæmia and hemorrhage, anæmia, injuries and wounds, acute bulbar myelitis, progressive bulbar paralysis, sclerotic centres, diffuse sclerosis, and as a finale, tumors of the medulla oblongata.

Our readers cannot but acknowledge that the 957 pages thus given to diseases of the spinal cord is the most exhaustive dissertation on record.

FOWNE'S MANUAL OF CHEMISTRY. THEORETICAL and Practical. Revised and corrected by Henry Watts, B.A., F.R.S. New American from the 12th English edition. 12 mo. Philadelphia: H. C. Lea. Toronto: Willing & Williamson.

The rapid strides which are being made in the department of chemistry, render it necessary to revise and correct the text books frequently. This manual is still the student's favorite. The English edition is in two volumes, but the American edition is presented in a single volume without any abridgment. The metric system is used throughout, but the equivalent terms in common use are still retained in brackets. We cordially recommend the book to students.

ATLAS OF SKIN DISEASES, by Louis A. Duhring, M.D., Prof. of Skin Diseases, Pennsylvania Hospital, Part IV. Philadelphia: J. B. Lippincott. Toronto: Willing & Williamson.

The present number contains beautiful plates of Vitiligo, Alopecia Areata, Tinea Favosa, and Eczema (rubrum). The text which accompanies the plates is of the most valuable and suggestive character. The work sustains in every respect, the favorable opinions expressed regarding the numbers that have been received. While we fully believe that skin disease are best studied clinically—yet the vivid pictures here given cannot fail to aid the practitioner greatly in the diagnosis of these affections.

APPOINTMENTS.—W. H. Ellis, M.A., M.B., has been appointed assistant Professor of Chemistry in the school of Practical Science, Toronto.

Dr. W. T. Stuart, has been appointed to the chair of Practical Chemistry, in the Trinity Medical School, Toronto.

Dr. Wm. Osler has been appointed one of the attending physicians to the Montreal General Hospital.

Dr. McPhedrain has been appointed lecturer on Botany and Zoology, in the Trinity Medical School, Toronto.

MATRICULANTS IN MEDICINE, TORONTO UNIVERSITY.—T. M. Milroy; E. R. Woods.

SCHOLARSHIP.—T. M. Milroy.

Births, Marriages, Deaths.

At Brampton, on the 9th ult., the wife of D. Heggie, M.D., of a daughter.

In Toronto, on the 30th Sept., the wife of W. H. Howitt, M.D., of a daughter.

On the 29th ult., A. H. Hughes, M.D., L.R.C.P., Edin., M.R.C.S., Eng., Surgeon, Bombay Army, to Louisa Rosalind, youngest daughter of H. G. Bernard, Esq., of Toronto.

At Newmarket, Oct. 23, J. W. Smith, M.B., Sheffield, to Miss Marion K., daughter of Silas Lundy, Esq., Newmarket.

At Walkerton, Oct., 3rd, J. J. Cassidy, M.D., of Toronto, to Appie A., daughter of A. Mesner, Walkerton.

In Montreal on the 29th ult., Dr. Park, of typhoid fever.

On the 7th ult., Dr. Davignon, of Longueuil, Que.

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Original Communications.

MEDICAL EVIDENCE IN COURTS OF LAW.*

BY DANIEL CLARK, M.D., TORONTO, ONT.
Superintendent of the Asylum for Insane.

Anyone who has paid even a superficial attention to medical evidence given in courts of law, must have noticed, from time to time, how easily medical witnesses can be procured to give evidence on both sides of a case. It matters not how clear may be the merits of the question, nor how little grounds exist for difference of opinion, yet medical men are found who will give positive testimony on either side, at the shortest notice, and on very flimsy premises. Lawyers take advantage of such conflict of opinion, and set up one medical man against another, until both judge and jury value the evidence by the reputed credibility and professional standing of each, and virtually neutralize the evidence of all by a system of offsets. This only refers to medical opinions, for in respect to facts all witnesses—lay or professional—stand on common ground, and state what are matters of observation, "without note or comment." It is true, medical science gives great room for difference of opinion, seeing it has not the exactness of mathematics. Herein lies the error in dogmatizing on much which is so obscure. Many of these varieties of opinion arise from a vain endeavor to explain everything connected with causes of litigation. In the presence of a court and the assembled multitude, it may not be pleasant to pronounce our ignorance; yet, in the endeavour to give answers hedged round with vain hypotheses of all kinds, the medical witness is apt to have unpleasantly forced upon him a display of how little he knows under a cross-examination, and thus what would have been re-

ceived as competent testimony, if it had been confined to sure opinion, is marred and doubted by pretending to know too much. In this plethora of opinion, lies one reason for so much contradictory evidence. It is well never to say more than the question covers, and to be guarded in even doing that, if the interrogation happens not to be relevant to the case at issue.

Another reason is in supposing ourselves as being witnesses for one side only, because we happen to be subpoenaed by one of the parties. The prosecutor or defendant, who calls a medical man, expects him to give *ex parte* evidence. He is paid a miserable pittance, to cover railway and hotel expenses. Is his testimony not bought and paid for, to be used on the disburser's behalf? This feeling, often involuntary, gets hold of the witness, and immediately the examination begins, he is on the alert against the wiles of the opposite lawyer, and often unconsciously is put upon the defensive to the injury of the truth. We have all felt this tendency. This position is not intentional, but the badgering of an indiscreet lawyer, may drive a medical witness to defend opinions which may give a coloring to a case not intended at the outset. This bias has to be guarded against. The witness is in court to tell *all* and *only* the truth, as far as in him lies. It is not for him to think of the result, consequent thereon, to any party. In giving evidence, it is not safe to weigh what will be the consequences flowing from its acceptance. "Let justice be done though the heavens fall." Unfortunately medical witnesses, giving opinions based on experience, are looked upon with suspicion by the courts. J. H. Balfour Browne, in the last edition of "The Medical Jurisprudence of Insanity," says: "That medical testimony, when received, should be received as of very *inferior* worth." Medical witnesses are said to be "rash," and to have expressed crude generalizations with an imperturbable effrontery," and that alienist physicians ask to be believed, "with an implicit faith, which was only compatible with the grossest ignorance; lawyers should assert the utter uselessness of the evidence of scientific witnesses in relation to questions of insanity." Lord Campbell says that "hardly any weight should be given to the evidence of skilled witnesses." Judge Davis declares in cases of insanity, "men of good common sense would give opinions worth more than

* Read before the Canada Medical Association, at Hamilton, Ont. September 12th, 1878.

that of all the experts in the country." A book might be filled with such choice quotations. If those who have made this branch of medical research a life-long study, are such ignorant and unreliable witnesses, what shall be said of the intelligent thousands and tens of thousands in general practice?

It is also to be remembered that in cases of damages for malpractice, each surgeon may have a mode of treatment distinct from any other, but sufficiently practical to be approved of in general practice, by any intelligent physician or surgeon. This treatment may be denounced by some one who is not able, from experience, to test its value, and an unlettered jury may decide the merits of the case in its professional aspects, by considering one method as only worthy of consideration, and give a verdict accordingly, to the astonishment of those best capable of judging. Next to the inscrutable ways of Providence stand the verdicts of juries, in their uncertainty and unforeseen results. This selection by non-professional men, of one method of treatment, to the exclusion of all others, has been seen by me on several occasions. At one time the prosecution was because of a shortened femur, and the merits of the double inclined plane or a straight splint, were decided by a jury selected from one of the back townships. Another was decided in favor of a flap operation as against a circular, the jury being composed mostly of farmers, fresh from the harvest field. Not long since I attended a trial in this city, and the jury were treated to clinics on the *dura-mater*, *arachnoid*, *pia-mater* and their blood vessels. The jury understood the merits of the case, after several hours of medical dissertations, as much as if the Crown Council had given an address in Choctaw. I envied one jurymen who slept soundly through it all, except when elbowed by a neighbour.

Antagonisms unhappily existing among medical men, lead to conflict of opinion. A case comes from a village, a town, or even a city. Observation teaches that the smaller the area from which such evidence is drawn, the stronger are the contentions in the locality, and the more likely does it become, that sides are taken before the suit goes to court. It is a matter of every day experience that in the majority of cases, such a locality will furnish medical evidence for the prosecutor and defendant. The reasons already given, may have something to

do with this diversity of conception. I fear unfriendly feelings, of a professional nature, must sometimes be taken into account. To the honor of our profession, it is seldom that false testimony is given from motives of revenge. Animosity against a professional brother seldom reaches perjury, yet, a love of establishing proof on a different basis from that of a rival, often leads to false conclusions, not intended by the witness. If this itching for novelty leads to wrong impressions, they are still farther intensified by ambiguity, which may be caused by unnecessary economy of words, or by the other extreme of profuseness of illustration, not conducive to perspicuity. Such being the case, a court refuses to reconcile contradictions among those who are supposed to know the merits of the case.

The late Lord Campbell said to three intelligent physicians, "you may go home to your patients, and be more usefully employed there than you have been here!" An equally learned judge said of another doctor, who was well qualified to give good evidence, "you might as well have staid at home and attended your patients." A Vice Chancellor of the Empire stated "that his experience taught him there were very few cases of insanity, in which any good came from the examination of medical witnesses. Their evidence sometimes adorned a case, and gave rise to very agreeable and interesting scientific discussions; but, after all, it had little or no weight with a jury." All judges do not sneer in the same manner, nor indulge in irony and sarcasm at the expense of the medical profession, but the weight given to a physician's or a surgeon's testimony, is not commensurate with his capability to give intelligent and experienced medical opinions. I can see, however, indications of a better understanding between medicine and law. The study of the obsolete is giving place to the practical, and metaphysical distinctions to pathological conditions, in considering many of the exciting causes of human conduct, coming under the head of jurisprudence. It will be seen how medicine and law are considered from different standpoints, and as a consequence the conclusions are diametrically opposite to one another. Medicine holds that all insane persons are afflicted with bodily disease. Law says this is not always the case. Medicine draws a necessary line between idiocy and insanity—the one being congenital, and

the other pathological. Law says they are one. Medicine declares that insanity, being a morbid state, no layman can properly pronounce judgment upon a patient's condition, nor in respect to facts that rise therefrom. Law asserts that a jury can, and should decide on the mental condition of the insane, based upon personal observation, just as an ignorant man would pronounce on the kind of disease a person had, from appearances alone. Medicine can show from living examples, that the sense of right and wrong, the possession of delusions, and many other tests propounded by the disciples of Coke and Blackstone, can have no value to discover insanity, when taken alone, for many insane have a keen sense of the former, and many not insane are troubled with the latter. Law says possession of the first is evidence of a sound mind, but the presence of the other shows insanity. Medicine extends the hand of charity to the mentally diseased, and asks that such be kept in durance for the purpose of cure or safety to themselves or others. Law applies its ironclad tests, and punishes all who can not pass the crucial ordeal. Medicine seeks after causes of action. Law deals out justice on the groundwork of appearances. Experts are called into court to testify in cases requiring the special aid of knowledge in chemistry, mechanics, or any other branch of science and art, and such testimony is accepted in its entirety; but medical men who make a special study of mental diseases, must have their opinions measured by the mental capacity of twelve jurymen, or worse still, by the dicta of judges, who accept rules laid down a century ago, when medical research was still in its infancy. Germany, France, and many of the States of the Union have accepted the medical basis of proof. It is expected that the British and Canadian courts will not ignore a system, that in every day practice will be found to be none the less effective in punishing the guilty, while it will save many a poor wretch from the infliction of a punishment which he had not deserved, as an irresponsible being, any more than a child unborn.

Judge Doe, of New Hampshire, in addressing the jury, *State vs. Pike*, says:

The legal profession, in profound ignorance of mental disease, have assailed the superintendents of asylums, who knew all that was known on the subject, and to whom the world owes an incalculable debt, as visionary theorists or sentimental philosophers, attempting to overthrow settled

principles of law; whereas, in fact, the legal profession were invading the province of medicine, and attempting to install old, exploded medical theories, in the place of facts established in the progress of scientific knowledge. The invading party will escape from a false position, when it withdraws into its own territory, and the administration of justice will avoid discredit when the controversy is thus brought to an end.

Judge Wharton, in his work on "Criminal Law," says:

No jurymen, if properly tender of his conscience and of public opinion, will base his verdict upon other evidence than that of those best able, from long training, and close attention, to understand the features of the case. In some cases the difference between a scientific, or technical opinion, and that of a layman, is not so much in the results attained, as in the guarantee afforded by the superior attainments and more minute expertness of a man of science. The declaration of such a man is insured against the possibility of error, to the full extent of the protection of science in its present state of development. *Pro foro*, this degree of certainty is sufficient, because it is the highest attainable; but the same can not be said of any other."

I make these few general observations, to show that our position in court would be much improved did caution, consistency, discretion, good judgment and candor prevail to a greater extent among ourselves. This would more readily be the case were all medical men, who might be subpoenaed upon a case, to meet together before being called as witnesses and in a calm, judicial way, discuss the different medical points bearing upon the approaching trial, and then go into the witness box, not as partisans "coached" for the occasion by counsel, but as unbiased witnesses, who "nothing extenuate nor set down aught in malice." These qualities are needed very much in the witness who gives evidence in cases of insanity. In most of such found on the criminal docket the disease is obscure, and to "make haste slowly" is very necessary that judgment may be just. The defendant may be a malingerer or a monomaniac, who cunningly hides his peculiarities (as many of them do). Such may be afflicted with melancholia, giving intelligent answers to questions, yet possessing homicidal or suicidal tendencies. The medical witness is often asked to give an opinion of the mental condition of such a person after a few minutes observation and conversation, or at most after one or two interviews of short duration. There

would be no difficulty in doing this, were a patient maniacal and indulging in all kinds of "fantastic tricks," but any one who has passed through the wards of an asylum knows, that a very large proportion of the patients are not of this class. Visitors and grand juries often mistake patients for attendants, and *vice versa*. A few weeks ago an intelligent banker of Toronto wrote me a letter beginning with these words, "The *housekeeper* mentioned to me yesterday." He had been a visitor to the ward every few days for weeks to see a sick friend; yet he mistook one of the most cunning patients in the ward for the housekeeper, and had been consulting him about matters connected with the patients. He was somewhat astonished when told that the *housekeeper* was at times one of the most intractable patients in the ward. A short time ago one of our city lawyers, who prides himself on his power to read almost intuitively the hieroglyphics of character, and who, in his own estimation, could tell an insane person at sight, mistook one of my clinical assistants for a lunatic, and commiserated him on his unfortunate condition. He afterwards came to me for information about "the poor fellow," as he had taken a deep interest in his forlorn and apparently hopeless condition. His pride had a fall when the truth came out. A prominent government official, not long since, mistook one of my most intelligent looking attendants for a patient. I am prepared at any time to select say twenty-four intelligent attendants or citizens, and twenty-four patients out of Toronto Asylum, and present them to any court of law before our most eminent judges, lawyers and jurymen. They will be allowed to make the same superficial examination which is often accorded to medical men in similar circumstances. The selection of patients shall be made from paretics in the early stage of the disease, from those afflicted with remittent insanity, from the melancholy and taciturn, and from monomaniacs. The judgment given of the mental condition found in each case, by such an intelligent and acute board of examiners, would show in a comical light what a travesty of justice it is, to ask even an expert to give an opinion of mental unsoundness, or sanity, after a cursory examination of a prisoner. About a year and a half ago, I was called to attend the assizes in a neighboring county, and asked to decide in a few hours the *mental status* of a prisoner, who had attempted to take the

life of his neighbor by shooting him. The houses of the two parties were near together, being situated on opposite sides of a country road. The prisoner cut a hole in the gable end of his house, and being a bachelor living alone, there was no one saw him cut the hole or shoot. He shot twice at his neighbor, the last shot taking effect in his lung, but not fatally. Every one of the prisoner's acquaintances, lay and medical, thought him eccentric, but perfectly sane. The first two interviews I had with him, I was led to suppose the same. He could talk intelligently on every topic of conversation that was introduced, but would give no reason at first for the attempted homicide. At the last interview I had with him, we began to discuss religious matters. Suddenly he asserted with great solemnity, and with a request to keep it a secret, that he was more than human. I suggested that possibly he might be God in human form. He asserted that I had found out the truth. He was omnipotent, and consequently could do what he wished. He had often lived sixty days at a time without food, to show that Christ's fasting of forty days was not a miracle. When he got out of gaol he intended to fast a year. He had been shot at with bullets by his enemies as he went along the road, or worked in the fields, but having an immortal body they could not harm him. We were sitting on a bed, and I suggested that he might be smothered to death, but he said that he could live without breath. If his head were cut off it would not affect him. He could make himself invisible whenever he pleased. Every one's life was in his hands, and the wife of the man he shot, was his by his divine right to her. Here it will be seen, that a morbid idea led to the attempt at homicide. Had I not happened to touch the key that opened the door to this chamber of fantasies, these aberrations would not have been developed. I was subpoenaed by the Crown, but the Queen's counsel knowing that my opinion would be, that this man showed evidence of insanity, I was not put in the witness box. The defence had not sufficient acumen to see, that this refusal to examine me by the prosecution, was presumptive evidence of my opinion being inimical to the case of the Crown counsel. The prisoner was treated as a sane man and a criminal. He is now in the Penitentiary Asylum. This case is cited to show the danger of hasty conclusions in cases of insanity, and the difficulties medical men

have to contend with, when asked to decide the mental condition of a prisoner at a few hours' notice. What shall be said of the jury, who must give a verdict based upon conflicting opinions, and not upon personal knowledge of the condition of the accused? Some time ago the Commissioners in Lunacy in Britain wisely recommended to the government that "If, upon the occasion of the trial of an indictment, the plea of insanity be set up, we are disposed to think that the question should be tried and determined by the court after taking medical and other evidence, and not by the common jury to try the facts."

An eminent English expert (Bucknill) says :

Generally the physician giving evidence can almost say that he paid *two* or *three* visits to the accused, and conversed with him in his *cell* in prison. In case of concealed delusions, or of disease affecting the propensities, no medical man ought to give an opinion on such shallow grounds. I am not ashamed, he continues to say, to acknowledge that I have observed patients *daily* for *several weeks* without being able to detect existing delusions.

The Court has too high an estimate, of the discerning power of the members of the medical profession. It must be remembered, that there is no well-defined line between sanity and insanity. No man can tell where the one begins, and the other ends. That belongs to omniscience, for we can only infer from manifestations what are the pathological conditions of the brain, and mental disturbance consequent therefrom. A witness should never give a positive opinion in obscure cases, for it must be remembered that while it is unjust to punish an irresponsible person who breaks the law, it is also not desirable that a cunning scoundrel should escape the just penalty of his crimes, under a false plea sustained by medical evidence. We are not allowed to state as to a man's responsibility. The Court decides that important point. Here lies a wide gulf between law and medicine, and, because of its existence, truth has suffered. No formula can cover all the phases of insanity, nor can a measure be found that is sufficiently accurate to map out the boundaries of responsibility, and say to it "hither shalt thou come and no further." All the conditions, physical and mental, of each individual must be known before the springs of action can be gauged with certainty in the shadowy borderland of insanity. "Is there insanity?" asks the Court of

the medical witness. "Is he responsible?" is an enigma for the judge and jury to solve.

Bucknill, in his monograph on Lunacy, quotes a vigorous writer in the *London Times* on this point :

Nothing can be more slightly defined, than the line of demarcation between sanity and insanity. Physicians and lawyers have vexed themselves with attempts at definition, in a case where definition is impossible. There has never yet been given to the world anything in the shape of a formula upon this subject, which may not be torn to shreds in five minutes by any ordinary logician.

Make the definition too narrow, it becomes meaningless; make it too wide, the whole human race are involved in the drag-net. In strictness, we are all mad when we give way to passion, to prejudice, to vice, to vanity; but if all the passionate, prejudiced, vicious, and vain people in this world are to be locked up as lunatics, who is to keep the key of the asylum? As was very fairly observed, however, by a learned Baron of Exchequer, when he was pressed by this argument, if we are all mad, being all madmen, we must do the best we can under such untoward circumstances. There must be a kind of rough understanding, as to the forms of lunacy which can't be tolerated. We will not interfere with the spendthrift, who is flinging his patrimony away upon swindlers, harlots and blacklegs, until he has denuded himself of his possessions and incurred debt. We have nothing to say to his brother madman, the miser, who pinches his belly to swell the balance at his banker's—being seventy-three years of age and without family—but if he refuses to pay taxes, society will not accept his monomania as pleadable at the bar.

Dr. Forbes Winslow, in his "Anatomy of Suicide," says :

A man may allow his imagination to dwell on an idea, until it acquires an unhealthy ascendancy over his intellect. Surely, if under such circumstances, he were to commit a murder, he ought to be held as a murderer, and would have no more claim to be excused than a man who has voluntarily associated with thieves and murderers until he has lost all sense of right and wrong; and much less than one who has had the misfortune, of being born and bred among such malefactors.

This wide definition could not be of practical benefit, because bias, confirmed habit, hereditary wickedness, oddity and peculiarities, may be

normal and the natural out-crop of successive voluntary acts by our progenitors or ourselves. In other words they are not the products of physical or mental disease, and are more or less the inheritance or acquisition of every one. This law of interpretation would include a large number of the insane as responsible beings. There are times in the lives of many lunatics, when they not only know right from wrong (the distinctive Shibboleth of so many judges to the present day), but also when they can refrain from wrong doing, for fear of punishment, as rational beings do in every day life. They can curb the insane impulse, by volitions which are within their control. Should they be exempt from penal consequences? The asylums are full of inmates, who for weeks together, are—as far as human knowledge goes—comparatively sane. Their insanity is periodic. In the intermissions of sanity such have full control over all their acts, and are cognizant of their relationship to society. The equilibrium of the mind at such times, as far as we can judge, is maintained, and such are quite capable to transact business, to bear injuries with equanimity, and forbear from any overt acts as any perfectly sane citizen. If at such times, and during such intermissions the individual commits a felony, should he be held responsible and punished for his crime? I am well aware that objection may be raised that during these so called “lucid intervals” the mind does not fully recover its normal tonic. This may be true to some extent in many cases, but if the mind have not all the strength of a totally sane man, in vigorous mental health, it has sufficiently recovered, at these times, to perform all its necessary work in the same manner and within the same control as the great majority of mankind. It is proposed to medical men, in view of these difficulties, to confine the definition of insanity to mean brain disease. In this way the question of responsibility would still remain with the Court. If by disease is meant organic lesion, then would the definition be too limited; for functional derangement will dethrone reason for a time. This is seen in the inhalation of anæsthetics, in drunkenness, in the wild delirium of fever, and in the effects of many other topical agents. The brain may become affected functionally, because of excitement in one or more distant organs of the body. This is seen in the kleptomania of women

at certain menstrual periods. The woman who revels in wealth, will become a thief at such times, but would revolt at the thought when the frenzy passes away. It is the love of stealing, not the pleasure of possession alone, that prompts the act. We see the same eccentric causes in puerperal mania, at the climacteric of female life, hysterical mania, nymphomania and such like, which may in their initiatory invasion be excitants, and the cause of permanent lesion of the brain in the long run, but none can say that the mischief has not begun outside of the brain. Disease of the brain will cover the large majority of insane. Disease of the body, outside the brain, will show an efficient cause in many. The two combined make a good majority in our asylums, but to say that lesion of the brain only, is a complete definition of insanity would not be in accordance with experience. *Post mortems* often show extensive adhesions inside the skull, and serious invasion of disease in the substance of the brains of those who have died of other bodily diseases, but sane to the last. Also many an insane person dies, and leaves no evidence of mischief in the head. The exciting cause may affect the encephalon from without, or it may be beyond the research of the pathologist, and cannot be a basis to support the definition above given. Even if this definition were correct, it would be impossible to state when it existed except by mental and physical manifestations; then why not accept a formula like that of the German Penal Code, viz.: “An Act is not punishable when the person at the time of doing it was in a state of unconsciousness, or of disease of mind, by which the free determination of the will was excluded.” This does not reject the idea of bodily disease, but it takes the outward manifestation as an indicator of the mischief within, just as the hands of a watch point out the condition of the machinery within. It is a question of *will not* and *can not*—of voluntary or involuntary action—or, in other words, had the accused in any particular act sufficient mental strength to control his actions at any time he wished, or was he led blindly and irresistibly, from any cause, to conduct unnatural and unusual for him to do? Properly speaking none are absolutely free. Inherited predisposition, educated bias, confirmed habit, hobby-riding, well-fed ambition, and such like, are manacles to impede volition. The free will of a sane man must always be considered

in a modified sense, for the ball and chain are hanging at our limbs, as we are paying the penalty for the transgressions of ourselves and ancestors.

The medical witness is to remember, however, that it is not his province to give a general definition of insanity. He is often entrapped into an attempt to do this, in order to give a counsel an opportunity to hold him and his opinions up to ridicule. He is asked in derision, "what is insanity?" but he can retort, by demanding the catechist to define one of the terms of his own question. The discussion of insanity, in the abstract, must be left to essays and text-books. Only facts and legitimate opinions, deduced from them, are asked for, to enable the Court to decide for itself, whether they are such as to warrant the plea of insanity on behalf of the person under consideration. The witness is to guard against being led into defining the insanity of any one, as being a want of power to distinguish *right* from *wrong*. True, many insane people have not that discrimination, but on the other hand, a large percentage of lunatics, have that power, as fully as the sound in mind. No jurist, who has the slightest experience of insanity, now holds that view, because it flies in the face of accepted facts. An illustrious race of English judges, for centuries past, and down to this hour, pronounce verdicts based on this inadequate judgment. On examining recent charges to the juries of Canada, I see indications of change of opinions, in this respect, among our judges, which are more in keeping with the truths of modern investigation.

In the Toronto Asylum there is an estimable lady, who is afflicted with religious melancholy. She has made several attempts at suicide. She never loses her sense of "the wickedness of the attempt," as she calls it, but the uncontrollable impulse is too strong for her. On one occasion recently she felt the strong desire coming on, and begged to have the leather muff put on her hands, lest she might be forced otherwise to accomplish her design. The courts would hold her to be an accountable being, seeing the sense of right and wrong had not been extinguished. A powerful mulatto is in the refractory ward, who is constantly persecuted with spirits. He has, intermittently, a longing to kill somebody. He knows it is wrong to even think so, and at these times he asks the supervisor to lock him in his room. According to

the interpretations of law, should he commit homicide, he ought to be hanged. In another ward is a patient, who was at one time a prominent writer for the press. He is afflicted with chronic mania of the most pronounced kind. On a recent occasion he told me that he "felt like wanting to kill" one of the patients against whom he had taken a dislike. He said he knew it was wrong to think so, but cunningly added, "you know I am crazy, so they wouldn't hang me." If, unfortunately, such homicide should take place, he should be hanged according to law. Dozens of such cases could be cited in any of our asylums. Dr. Hammond, a reputed expert on insanity, an extensive writer on the subject, at one time Surgeon General of the United States Army, and now associate editor of *The Journal of Nervous and Mental Disease*, said recently in a discussion which took place on this subject, at a meeting of the "Medico-Legal Society, of New York," "that he is in favour of punishing insane people, just as he would a tiger who went about destroying people. If a lunatic had a homicidal mania he would hang him."* He would not only hang *any* and *all* insane people who killed any one, but he would hang them if they had a mania to kill, even were the deed not performed. This would be an effectual way to make vacancies in our asylums, and would remove perplexing problems from our courts of law to the scaffold and the grave. I am sure such a brutal idea will never prevail where humanity exists. One of the theories of the transmigration of souls was, that some one died when each mortal was born, and the soul of the dead one, was immediately translated to the new-born child. I am afraid no one died when Dr. Hammond was born. I take this charitable view of the author of such a horrible proposal.

There is reason for caution in a witness, when he is asked to acknowledge that peculiarities of mind may mean insanity and irresponsibility. A man may do a great many strange things, and still have perfect soundness of mind. There is no common standard to measure mentality with, analagous to the yard stick and bushel in the British museum. Each man must be gauged by himself, in his antecedent conduct and individuality, for among all the sons and daughters of Adam, no two are alike in body and mind. No man can be

* *The Journal of Mental and Nervous Diseases*, July 1878, p. 556, et seq.

justly tried by a code of laws, which indulges in vague generalities, on the one hand, or which vaunts an absurd, minute classification on the other. What may seem odd in a naturally quiet and reticent man, may be the usual conduct of him who is "boiling over" with exuberance of spirits. The temperament, peculiarity, bias, habit and mode of thought, of each person must be considered in relation to each history. To expect uniformity in humanity, and judge that one man must act like any or every other man, is the greatest absurdity. This want of sameness must forever bar the way, to finding a general definition of insanity. The conditions are too multifarious for us ever to prove mental *status*, with formulæ as definite as those of Euclid.

A witness should not allow himself to be led into a trap by having proposed to him one symptom at a time, and then be asked if each of those indicate insanity. Each symptom might not be characteristic in itself, when the aggregate might be conclusive. When details are asked for, the witness must guard himself by insisting on their accumulated weight, to enable him to form an opinion. This may not be necessary in acute cases, when the patient's actions speak louder than words, but the sum total of symptoms is of great importance when the indications are obscure. Many times it is impossible to express, in words, the gait, mode of expression, look and general demeanor of an insane person, so as to impress a court with their forcible significance. Take an example of one of many found in any asylum. A person was once tidy in his habits; is now slovenly. He had a firm step; he has now a shuffling gait. He never decorated his person; he now makes a ring of some material for his finger, or ties it in a button-hole. He was not a keen observer of small things; he now notices and picks up pins, nails, straws, bits of glass, or any other small object that may come in his way, placing them in some corner, in his pocket, or in any other part of his clothing. He may have had distinct utterance; but he has lost that clear enunciation of words and mumbles them out. He was inquisitive at one time as to what was going on around him; he may now listen to a recital of stirring events, and take a momentary interest in them; but it is of short duration. He was active and industrious; but he is now lazy. This recital might be extended indefinitely, but, in short, there

is a perversion of the patient's whole character. The medical witness sees a case of dementia, yet, each of the symptoms taken *seriatim*, would have no significance, being without salient points, to an unobservant jury, and even the combined catalogue, would have little force or weight in many courts of law. There may be no delusion apparent; there may be a sense of right and wrong. Sharp questionings may elicit correct and intelligent answers, but a number of changes of character, such as I have enumerated, pronounce an unsound mind; or rather a physical disease has instrumentally impeded the healthful exercise of mental vigor. The ancient aphorism holds true amid all the fluctuations of mental philosophy, *i. e.*, "a sane mind in a sane body." The appearances of disease may be faint when taken in detail, but to a practiced eye, and to a matured judgment, accustomed to study the faintest outcrop of mental aberrations, those peculiarities tell a tale which may have no weight with the unskilled in the protean forms of insanity.

It is sometimes insisted upon that a categorical answer be given to every question put to a witness. It may be impossible truthfully to do this, because of the form in which the interrogation is put. The examiner is well aware of this fact, hence the bait cunningly thrown out to catch the unwary. For example, were it asked about a patient, "Did he then refrain from speaking nonsense?" Were the answer "yes" it would imply that he had been speaking it, but had ceased to do so. Were the answer "no" it would mean that he had spoken nonsense, and continued to speak in the same strain up to the time under discussion. Neither answer might be true, for if the patient had not spoken at all, as indicated, the fallacy lay in an assumption which had no existence. It would be begging the whole question, and neither a positive nor negative answer could cover the ground. This is only one specimen of a legion of such questions which often perplex beginners, and are propounded with that object in view, and a negative or positive answer demanded with legal pertinacity. When such traps are set and baited with sagacious design a state of "masterly inactivity" is best, until the questioner goes back to legitimate interrogation. A medical witness should never quote authorities, nor should he be entrapped into endorsing or refuting such, if they should be presented by counsel for his consideration. No published books on

medical subjects are competent witnesses in court; nor is a witness compelled to give an opinion about the views the authors may advance. The writers themselves are the only legitimate persons who can testify to their theories and beliefs. I have often seen witnesses caught in this way, even before the opposing counsel could put a veto on the irregularity. "Do you agree with Maudsley in his view on this point?" How does it happen that Bucknill and you differ in this respect?" "Can you give me Tuke's opinions on the subject under discussion?" "In Ray's Jurisprudence such and such theories are advanced, what do you think about them?" "You have read Taylor, will you state what he says about insanity in respect to competent wills, or suicide, or homicidal mania?" These are specimen interrogations which may be put, but need not be answered. A refusal to do so will be sustained by the Court. If a witness begins to air his medical lore by quoting authors, he may be able to show his possession of a good memory, but he will not contribute any *facts* of which he is cognizant, through giving lectures on the opinions of others.

The most difficult position a medical man can be put in, is when called upon to give evidence in cases of contested wills. The capacity of a testator to make a will and the soundness of mind requisite to make a valid one, are often questions of great difficulty. It should be held generally as essential, that the testator should have sufficient mental capacity to comprehend perfectly the condition of his property, his relation to the persons who were or might have been the objects of his bounty, the scope and bearings of the provisions of his will, and a memory of an activity sufficient to collect in his mind, without prompting, the particulars or elements of the business to be transacted, and to retain them in his mind for a period sufficient to perceive at least their obvious relations to each other, and to be able to form some rational judgment with relation to them. (*Vide* Rokenbaugh on Testamentary Capacity, *Journal of Nervous and Mental Disease*, July, 1878.) This test will cover all the ground. It does not assert incapacity to eccentric testators, nor those who may be laboring under delusions of facts. Esquirol says: The brain may be affected, but it does not necessarily mean an impairment of the understanding. On the other hand, it was strongly asserted by Lord

Brougham, and is now by a certain class of thinkers, that *any* insane delusion entirely destroys the mental capacity of a testator to make a competent will. Lord Brougham tells us, that when travelling in the north of Europe, he at one time was taking a bath at his hotel. As he came out of it he saw a friend in the room, who at that time had died in India. He says he became insensible immediately afterwards. This apparition was doubtless the premonition of a fit. His lordship would not have agreed to have the rule of incapacity applied to himself, on account of this hallucination. Lincoln had many delusions, so say his biographers. Sir Walter Scott was not exempt from them, when he was in the zenith of intellectual vigor. Dr. Johnson heard his dead mother calling out "Samuel." Lord Castlereagh, the brilliant but corrupt statesman, often saw a beautiful child in his chimney corner. Goethe also positively asserts "that on one occasion he saw distinctly his own double"—or himself outside of himself. General Rapp tells us that Bonaparte saw a star of great brilliancy above his head. Napoleon said: "It has never abandoned me; I see it on all great occasions; it orders me to go forward; and it is a constant sign of good fortune." Malebranch, Des Cartes, Luther, Wesley, Knox, Pascal, Loyola, and many of the most remarkable men of the past ages were the victims of all kinds of delusions and illusions. Yet, these children of genius could not be properly called lunatics, even if genius be said to be nearly allied to madness. There is no doubt, in my own mind, that all such deceptions of the intellect or senses often exist without mental aberration being present of sufficient intensity to invalidate a will.

"At the same time in the consideration of every case, imbecility, delusions, monomania, or hallucinations, intoxication, lucid intervals, undue influence or fraud, and presumptions arising from the character of the act itself, the age of the testator, and such bodily infirmities as deafness, dumbness or blindness," must be well weighed in considering testamentary capacity. Eccentricity is said to be the lowest form of insanity. It is seldom, however, that a will is made invalid because of its existence in the testator. In 1861, a wealthy Portuguese died in Paris. He left a will with seventy-one codicils. One of which read "I leave for the Athenæum of Paris 10,000 francs, and the half of the interest shall be paid to a professor of natural history, who

shall lecture on the colors and patterns of dresses and on the characters of animals." Another was, "My funeral shall take place at 3 p.m., the hour at which the rooks of the Louvre come home to dinner." The will was held to be valid, the Court saying "that these peculiarities were but the absurdities of a vain man." The peculiarities of the eccentric are as varied as are the phases of the mind, and it has been well said by Redford, in his "Treatise on Wills," that "The *eccentric* man is aware of his peculiarity and persists in his course from choice, and in defiance of popular sentiment; while the *monomaniac* verily believes he is acting in conformity to the most wise and judicious counsels; and often seems to have lost all control over his voluntary powers, and to be a dupe and victim of some demon like that of Socrates."

Without entering into details, which would need a volume to elucidate fully, it is well in every case to consider whether the aberrations are such as would warrant us to sign a certificate of insanity to commit to an asylum for treatment and safe keeping. If we do not consider such to be safe at large, they are not responsible beings. We should examine as to delusions and ascertain if they are sufficiently strong to warp the judgment and seriously affect the conduct of the individual; or, if they are of such an insulated nature as not to interfere to an appreciable extent with volition, and are not joined with morbid emotions and sentiments. It is also important to observe if the moral feelings and passions are perverted, if measured by a common standard, or better still by the patient's former temper and character, and if these are sufficiently morbid to affect the power of self-control. The impulsive form of insanity is to be examined with great care, for under its guise real culprits take shelter to avoid just penal consequences. The strongest evidence of its existence should be made manifest to a medical witness before he testifies to the presence of mental disease in such cases. If these cardinal points are kept in view, an aid to intelligent testimony will be the result.

TREATMENT OF DIPHTHERIA BY SALICYLIC ACID.

BY W. F. JACKSON, M.D., C.M., BROCKVILLE, ONT.

Diphtheria is one of the most dreaded diseases of our climate, and justly so. Hitherto the treat-

ment of it has been, to say the least, unsatisfactory. I feel certain that any remedy which will act upon it in a curative manner with any degree of certainty, will be hailed with delight both by the members of our profession and by the laity.

I think that in *Salicylic Acid* we possess such an agent. I am not aware that it has been reported in any of our journals in this connection, and a feeling of its great worth impels me to make known my experience of its use. The theory of its action is probably to be explained by its anti-putrefactive properties, both topically and generally. In practice it will be found to prevent decomposition of the false membranes in the fauces, the consequent foetor, and the blood-poisoning due to the ingestion and inhalation of putrid matters. It also seems to exert a special *tour de force* against the diphtheritic poison in the blood, for, the patients in whom I have exhibited the remedy, became immediately much brighter, and lost the great inertia so constantly observed in this disease.

The way in which I have given the remedy is in *small but frequently repeated* doses. By this means an immediate local effect is produced and maintained, and within a reasonable time the constitutional action of the drug is manifested.

R. Acidi Salicylici ʒ i
Pulv. Acaciæ ʒ ij
Syr. Simp. ʒ ij
Aque puræ ad. ʒ iv—M

Mix the powders together in a mortar, add the syrup, and when these are thoroughly incorporated, add the water in successive portions. This makes a creamy mixture which is taken readily by children. The dose of the above is a teaspoonful every hour, to patients between 3 and 10 years of age. I also swab the throat twice or thrice a day with a solution of carbolic acid and glycerine. 1 to ʒ. The dietary of course should be of the most nourishing and easily digestible order, and in considerable quantities.

During the past month, I have had five cases of undoubted diphtheria in all its gravity. Under the treatment here indicated, they all recovered without a bad symptom. The average age was 4½ years. The average confinement to bed was three days, and to the room five days. The patients were allowed to sit up, as soon as their throats were completely free from false membrane. During the progress of the disease, the acid produced no

smarting in the throat until after the separation of the exudation. Beyond slight swelling of the parotids there were no sequelæ, and these yielded readily to the inunction of the icdide of ammonium in the form of a liniment.

I am anxious to give the carbolic acid its fair due in the success of my treatment in these cases, but I am sure salicylic acid would do quite as well were it not for its insolubility.

I do not look upon this or any other drug in the light of a *specific*. Probably the number of cases I have quoted, is too small upon which to base any firm opinion of the real merits of salicylic acid in the treatment of this disease. But these cases behaved so differently, and progressed so much more favorably than any I ever had before under other remedies, that I shall continue this plan of treatment until either I find a better, or experience some good reason for its disuse. During the progress of these cases, I used this drug in a case of scarlatina anginosa—that step-brother to diphtheria—and with the happiest results. In this case the hypo-sulphites had been administered without other effect than to produce vomiting. Aside from any therapeutical value, salicylic acid has the following points to recommend it. 1st, When reasonably pure it is taken without disgust or difficulty. 2nd, In any ordinary quantity it is not poisonous. 3rd, It is cheap; and lastly I would urge, if this drug be used *give it frequently*, from the invasion until convalescence is fully established.

ON BASEDOW'S (GRAVES') DISEASE.*

BY ADOLF ALT, M.D., TORONTO, ONT.

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Although a number of authors, among whom *Graves*, had described cases, which we now count among those of Basedow's disease, before Basedow's elaborate paper appeared, the latter was the first one to recognize the combination of palpitation of the heart, swelling of the thyroid gland and exophthalmus (protrusion of the eyeballs) as a separate form of disease. Since Basedow's first communication in 1840, a large number of such cases have been described, and although up to this

date we do not really know the origin of this disease, its ensemble is fully established.

Basedow's disease begins always with an acceleration and intensification of the action of the heart. The symptoms are most pronounced when the patient stoops or exerts himself in any way or after mental excitement. Although there is very seldom any fever combined with Basedow's disease, the pulsations number from 120 to 200 a minute. The heart's shock is much stronger than normal, and may often be seen through the clothes. The dulness of the heart is often considerably increased; however this symptom may be wanting. Although organic disease of the heart is as a rule not present, there are often systolic noises at the apex or base of the heart. The carotid arteries are enlarged and beat fiercely, and the patients often complain of hearing this beating constantly. While the pulsations of the carotid arteries and often also of the abdominal aorta are so intense, those of the radials are generally very weak and small. The jugular veins are also enlarged, overfilled and pulsating. Sooner or later the thyroid gland begins to swell. The struma, however, seldom becomes very large and is often of an intermittent character. The right lobe seems to be earlier, and more frequently and strongly attacked than the left. The struma is soft in the beginning, but becomes often harder as the disease advances. The blood-vessels of the thyroid gland, especially its arteries are dilated and tortuous. In some cases systolic noises can be heard in them.

The symptoms which are often the latest developed are those concerning the eye, among them the exophthalmus is the most marked. The protrusion of the eyeballs varies very much in degree, and it is often more pronounced in the right eye than in the left. Another important eye symptom which was first detected by *Von Graefe*, concerns the eyelids. In the normal condition the upper lids follow the movements of the eyes, so that when the latter are turned downwards, the lids make the same movement, all the while covering the ball to the corneal margin. In Basedow's disease this co-ordinate movement of the eyeballs or upper lids is nearly, or totally abolished, and when the eyes are turned downwards the upper lids will remain behind so as to leave a strip of sclerotic tissue free to view between the upper margin of the cornea and the ciliary margin of the upper lid. A similar lack of

* Read before the Toronto Medical Society.

motion is often found also in the lower lids. Where the protrusion of the globes is not well pronounced or symmetrical on both sides, this lack of motion of the lids is a valuable symptom with regard to the diagnosis. The movements of the eyeballs themselves are often restricted in all directions and a slight degree of divergent strabismus is not unfrequent. If the protrusion of the eyeball is so excessive, that the eyelids no longer cover the cornea (especially during sleep), ulceration of the latter is apt to occur, the result of which may of course greatly diminish the patient's sight, or even as in some unfortunate cases lead to perfect destruction of one or both eyeballs. The pupils are mostly of normal size and reaction, and but seldom found to be dilated. The retinal arteries are in many cases enlarged, as broad as the veins. Arterial pulsation in the retina has also been observed in this disease (O. Becker.) Furthermore the patients suffer often from pain in the orbit, the ophthalmic branch of the fifth pair, and in the occipital nerve.

Although these symptoms of the heart, thyroid glands and eyes are the chief symptoms of the disease, a number of others are seldom wanting. The palpitation of the heart may cause a feeling of pressure upon the chest, and dyspnoea, which may sometimes be aggravated into a real orthopnoea and angina pectoris. The digestion is nearly always impaired, and vomiting is frequently observed; in a few cases only the patients, are on the contrary, troubled by an excessive appetite. The patients are frequently very anæmic and become utterly exhausted. This exhaustion is often followed by hydropic symptoms in the lower limbs. In female patients, who as we will see, constitute the majority of subjects of this disease, there is most always, if not always, some deformity or disease of the sexual organs to be found, and the menses are irregular or wanting entirely. Headache and sleeplessness are seldom missing and the patients are frequently very excited and nervous. They are thus rendered unable to do any work, and become either utterly depressed in spirits or so desperately gay, that they seem, and may become really insane, at least, the latter result has been reported in one case.

The disease is seldom acute, its development mostly lasts several years. The three chief symptoms come on as a rule in the following succession;

(1) palpitation of the heart, (2) struma, and (3) exophthalmus. In some cases the three chief symptoms are not well pronounced, when the disease is at the acme; sometimes one of them disappears after all have been developed, and this is mostly the case with the struma. Temporary improvements are frequently observed.

The diagnosis of Basedow's disease is not difficult, as soon as two of the three chief symptoms are well developed. With regard to the lack of motion in the upper eyelids, combined with the exophthalmus, I may mention here, that it is pathognomonic of this disease, and not found in any case of exophthalmus from any other cause. Basedow's disease is seldom fatal. When it is observed to be so, the patients die from hydropic symptoms, sometimes causing gangrenous inflammation of the lower limbs. Hemorrhage in the brain, softening of the brain and meningitis have also been observed. In most cases however, other diseases were present, and the question remained, whether death resulted from these, or from Basedow's disease. On the other hand lasting improvement and entire cure of the affection, have been seen only in about 25 per cent. of the cases, according to Von Dusch. The prognosis *ad vitam* is therefore not a bad one; it depends, however, greatly upon the general condition of the patient and the degree of marasmus he is found in, when first seen by the physician. In women, the return, or beginning of menstruation is a favorable symptom. The prognosis is, however, less favorable in male than in female patients. Why it is so is not known. Perhaps the age of the patient may have some bearing upon this point, since the disease attacks man, later than women. According to recent statistics one out of every 12 patients is a male, *i.e.* $8\frac{1}{3}\%$ of all the cases.

With regard to the etiology, we know very little. The disease is often preceded by some other, acute or chronic disease, or by a great loss of blood or by over exertion. It seems to be beyond doubt, that in women the disease is dependent upon some trouble in the sexual apparatus. Whether this is so in men, is not so certain. Forster recently reported a case, where a disease of the sexual organs was existing. The case was that of a young man, 21 years of age, in whom Basedow's disease came on a short time after the patient had been fighting with a woman for half an hour, in

order to force her to sexual intercourse, without the wished for result. When Forster saw the patient, Basedow's disease was well developed, and both epididymes were swollen and painful. More careful observation may, perhaps, in future establish in the male the same connection between troubles in the sexual sphere and Basedow's disease, as is acknowledged by all the authors on this subject, to exist in women. It is not impossible also, that perhaps, hereditary influence may come into play in the development of this disease. At least, there is one instance on record, in which two *sisters* suffered from it. The post-mortems on individuals, who had during life been subject to Basedow's disease, have revealed the following pathological conditions. In some cases the heart was perfectly normal, in most of the cases also free from any valvular deformity. In the large majority, however, the heart was found to be hypertrophic, especially the left ventricle. Its muscular tissue showed sometimes fatty and sometimes amyloid degeneration. The struma was mostly found to be caused by simple hypertrophy of the glandular tissue or by colloid metamorphosis. In some cases there were fibrous nodules and deposits of chalk present in the tumor. In other cases the tissue of the thyroid gland was found perfectly unaltered, and the struma could only be explained by an over-filling of the blood-vessels during life. This latter condition applies especially to cases where the struma was intermittent. The eyeballs were as a rule found normal, at least where no ulcerations of the cornea etc., had taken place. In a case I once had occasion to examine, I found central choroido-retinitis in one eye. Von Recklinghausen found in one case the tissue of the external ocular muscles undergoing fatty degeneration. In all other cases, also in mine, this condition did not exist. The fatty tissue of the orbit is in most of the cases hypertrophic to a varying degree. These pathological conditions, of course would never explain the clinical symptoms. The pathologists therefore looked for some other changes in the body, and lately great attention has been paid to the anatomical condition of the nerves in this disease, especially the cervical portion of the sympathetic nerves. Trousseau and Peter, found the lowest cervical ganglion enlarged, reddish and hyperæmic. Its nervous elements were reduced in size and number, whilst the fat and connective tis-

sue were greatly increased, and the latter very fibrous. These and similar changes in the sympathetic nerve have been found nearly in every case, since the attention of the pathologist was first drawn to them.

What, now, is the real nature of Basedow's disease? Certain it is, that the three chief symptoms, *i.e.*, *palpitation of the heart* with hypertrophy and enlargement of the carotid arteries and jugular veins, struma and exophthalmus with the loss of co-ordination in the movements of the eyeball and lid must spring from some common cause. The sympathetic nerve seems therefore to be the centre of the disease. A number of hypothesis were brought forward to explain the nature of the disease. I mention here only one, which is the most plausible and at the same time based upon the few facts the pathologists have found in examining such cases. Paralysis of the cervical part of the sympathetic, due to the pathological changes found in its course, would explain very well the dilatation of the carotid arteries and jugular veins, the vascular struma and the exophthalmus, if we assume that the latter is due to relaxation of the walls and consequent dilatation of the orbital bloodvessels. By the experiments of Claude Bernard, however, it has been proven that cutting the cervical part of the sympathetic nerve produces dilatation of the pupils, contraction of the orbicularis palpebrarum muscle and, instead of exophthalmus as in this disease, retraction of the eye-balls. To explain the symptoms in Basedow's disease, *i.e.*, normal pupil and protrusion of the eye-balls, we would therefore expect rather an irritation of the sympathetic nerve. The difficulty is overcome by another experiment of the same author, by which he has proven that after cutting the so-called oculo-pupillary nerve-fibres and irritating the peripheral end, widening of the palpebral fissure, protrusion of the eye-balls and contraction of the pupils will ensue. These oculo-pupillary nerve-fibres form a part of the cervical portion of the sympathetic, and originate from the anterior root of the second dorsal nerve. We come thus to the hypothesis that the main portion of the cervical part of the sympathetic nerve is paralyzed in Basedow's disease, while a smaller part of it, *viz.*, the oculo-pupillary fibres are in a state of irritation. The palpitation of the heart may, of course, be caused either by a diminished action of the tenth nerve (vagus) or an increase of

action in the sympathetic fibres which go to the heart.

The therapeutic measures applied in Basedow's disease have been manifold. Digitalis, iron, quinine, bromide of potassium, cold water, strychnia, and lately arsenic and galvanism have all been used with some success. It will, of course, greatly depend upon the condition the patient is in, when first seen, what remedy should be employed. Arsenic and iron internally, and galvanism together have lately been highly recommended by some French authors and I had occasion to give this method a trial.

Miss A. F., 25 years of age, sister of a medical man, consulted me in November last on account of protrusion of the eye-balls. She had been suffering from palpitation of the heart for many years, and for four years she had noticed a gradual protrusion of the eyes, after having been aware of an intermittent swelling of the thyroid gland for some time. When I saw her she was a very thin, anæmic, little individual; she had no appetite, vomited frequently, and could not do any work, the least exertion bringing on very fierce palpitation of the heart. The patient was very nervous and excitable, and was very restless at night. Her pulse was 130 a minute; the carotid arteries and jugular veins were dilated and beating fiercely. Besides the protrusion of the eye balls, there was a slight degree of divergent strabismus. The loss of co-ordination in the downward movement of the eyes and upper lids was very marked. The movements of the eyes were a little restricted in all directions. No struma was present. Patient had never menstruated. I diagnosed Basedow's disease, and treated her according to the method recommended by the French authors, by giving her liquor potassa arsenitis, and tincture of iron internally, and applying the constant current of 5 to 8 elements to the eyes and sympathetic nerve. Increased the dose of arsenic rather rapidly, and when after 4 weeks treatment, the first sign of poisoning, a severe conjunctival catarrh, put in an appearance, I left it off altogether, and went on giving iron alone.

Twenty two sittings of from 5 to 15 minutes at a time, sufficed to improve the patient very considerably, so much so, that no further treatment but iron internally, was deemed necessary. When I saw the lady some time ago, she was

as well as when she was discharged from treatment. There was no more exophthalmus, the lid-symptoms had disappeared, palpitation of the heart was very rare, and came on only after over-exertion. Appetite and general feeling were good. Although this case so far, is considerably improved, I doubt whether this improvement will be durable. The patient certainly is suffering from a great disorder of her sexual apparatus; what it is, I cannot tell, since she refused to have any physician examine her. The removal of this trouble, would in my opinion, be a necessary condition for the cure of Basedow's disease- I may add yet, that Von Graefe advised tarsoraphy, *i.e.*, partial closure of the palpebral fissure in cases of excessive protrusion of the eye and expansion of the cornea during sleep. This operation has so far met with great success. It not only prevents the ulceration of the cornea, which is caused by exposure of that membrane, but it seems to have moreover, a direct healing effect upon the protrusion of the eyes. Later on Von Graefe advised tenotomy of the levator palpebrarum muscles, this operation however has not been adopted, the opinion of the professor being highly in favor of the tarsoraphy.

THE THEORY OF GERMS, AND ITS APPLICATION TO MEDICINE AND SURGERY: BY DRS. PASTEUR, JOUBERT, AND CHAMBERLAND.*

(Translated from the Portuguese,)

BY JOSEPH WORKMAN, M.D., TORONTO.

"All the sciences profit by mutual support. When, in consequence of my first communications on fermentations, in 1857 and 1858, it could be admitted that ferments, properly so-called, are living beings; that germs of microscopic organisms abound on the surfaces of all objects, in the atmosphere and the waters; that the hypothesis of a spontaneous generation is actually chimerical; that wines, ale, vinegar, blood, urine, and all the liquids of the economy undergo, in contact with pure air, none of their common alterations, medicine and surgery presented new aspects under these lights. A French physician, Dr. Davaine, made the first happy application of these principles in medicine in 1863.

* Translated into Portuguese from the *Gazette Medicale de Paris*, by the editor of the *Gazeta da Bahia*, in the numbers for June, July and August, 1878, and to be continued.

Our investigations of last year have left the etiology of putrescence, or septicæmia, much less advanced than that of carbuncle. We have shown that it was very probable that septicæmia depends on the presence, and the multiplication, of a microscopic organism, but the vigorous demonstration of this important conclusion had not yet been accomplished. In order to establish experimentally, that a microscopic organism is in reality the morbid agent in contagion, I see no other means, in the present actual state of science, than to submit the *microbio*, (the new and happy term proposed by Dr. Sedillot) to the method of successive cultures." (dilutions ?) "outside the economy. We may here state that in a dozen of cultures, each of the volume of ten cubic centimeters, the original drop has become as far diluted, as if it had finally been in a volume equal to the size of the earth." (Is not this homœopathic reduction, if not something more, *usque ad rogatum alieni* ? Translator.)

"Precisely to this kind of test have we submitted the carbuncle bacteria, both Joubert and myself. After having cultivated it a great number of times in a liquid deprived of every virulence, each culture (dilution), having for its seed only one drop of the preceding one, we established the fact, that the product of the last culture was capable of multiplying, and of working in the bodies of animals, giving to them carbuncle with all the symptoms of this affection. Such is, in our opinion, an incontestable proof that carbuncle is a disease from bacteria.

As relates to the *septic vibrio*, our investigations did not in so high a degree produce conviction. It was to fill up this gap that we determined to recommence our experiments. With this view, we tried the culture of the septic vibrio, drawn from an animal dead from septicæmia, and it is worthy of note, that all our first experiments notwithstanding the variety of means of culture adopted, failed : urine, fluid of the ferment of beer, water of cooked flesh, etc.

The liquids which we employed did not remain infecundate, but most times we obtained a microscopic organism which showed no relation whatever to the septic vibrio, and which had a form very commonly of rosaries of small spherical grains, and of extreme tenuity, and without virulence of any sort. There had been an impurity, sown without

our knowing it, at the same time as the septic vibrio, and whose germ, without doubt, passed from the intestines, always inflamed in septicæmous animals, through the abdominal serosity, from which in the outset we took the seed of the septic vibrio. If this hypothesis, as to the impurity of our cultures, be well founded, we should probably obtain the pure septic vibrio, by procuring it in the blood of the heart of an animal recently dead from septicæmia. This was what happened, but there arose a new difficulty. All our cultures became sterile, and still more, this sterility was conjoined with the loss of virulence in the seed of our culture.

It then occurred to us that the septic vibrio might be an organism exclusively anaërobious, (living without air,) and that the sterility of the cultured liquids might depend on the death of the vibriones from the oxygen of the air in the solutions. The Academy will perhaps remember that on a past occasion, I verified facts of the same order in the vibriones of butyric fermentation—that these creatures not only live without air, but that air kills them.* It therefore became necessary to try the culture of the septic vibrio *in vacuo*, or in the presence of inert gases, such as the carbonic. The facts corresponded to our expectations ; the septic vibrio was developed with facility in a perfect vacuum, but with less facility in the presence of carbonic acid. These results had a necessary corollary. By exposing a liquid charged with septic vibriones, to contact with pure air, they should all die, and all virulence should disappear. And this is what happens—Let some drops of a septic serosity be collected, and spread out in a thin layer on a plate placed horizontally ; in less than half a day the liquid becomes, absolutely innocuous, even though it was at the outset, virulent to such a degree, as to produce death by the inoculation of the least fraction of a drop. But yet more, all the vibriones which filled, in profusion, the liquid, under the form of fine moving threads, have been destroyed, and have disappeared. Nothing is found, after the action of the air, excepting fine amorphous granulations, foreign to the whole culture, and quite incapable of the communication of any diseased state whatever. It may truly be said that the air has burned up the vibriones.

It is terrifying to think that life may be at the

* This vibrio is not the same as the septic.

mercy of the multiplication of such infinitely small things; it is still consoling to hope that science will not always impotently confront such enemies, when it is seen almost at the outset of the study, that it shows for example, that simple contact with the air suffices often to destroy them.

But if oxygen destroys vibriones, how can septicæmia exist, if atmospheric air exists in every part? How could the blood, exposed to contact with air, become septic from motes floating in it?

All is occult, obscure, and matter for discussion, whilst we are ignorant of the cause of the phenomena; but all is clear when we know it. That which we have above been saying is not true, unless of a septic liquid charged with adult vibriones, in the process of generation by scission. Things are different when the vibriones are transformed into germs, that is, into those brilliant corpuscles, described and figured, for the first time in my studies over the disease of the silk-worm, called for by the occasion of the deaths of these insects from vibriones, producing the disease called *flacherie*. Only the adult vibriones disappear, are burned up, and lose their virulence in contact with air; the germal corpuscles are in these conditions preserved, always ready for new cultures, and new inoculations. All this, however, cannot resolve the difficulty of knowing how the septic germs exist on the surface of things, and fluctuating in the air and the water. Whence can these corpuscles originate? However, nothing is more easy than the production of these germs, notwithstanding the presence of air in contact with septic liquids.

Let us take the abdominal serosity of septic vibriones, all in the way of generating by scissure, and expose this liquid to contact with the air, as we did with the especial precaution, however, of giving to it a certain thickness, if only that of a centimetre, and in a few hours behold the strange phenomenon presented. In the upper layers oxygen has been absorbed, as is manifested by the change of colour of the liquid. Here the vibriones die and disappear. In the deeper layers, on the contrary, the vibriones protected from the action of the oxygen by their brethren who die over them, continue to multiply themselves by scissure; afterwards, little by little, they pass into the state of corpuscular germs, with resorption of the residue of the body of the filiform vibrio. Then instead of the moving threads of all linear dimensions,

whose bulk exceeded many times the field of the microscope, nothing is to be seen but a dust of brilliant points, isolated or envolved in a formless rout hardly visible. Behold now formed, living, the hidden life of germs, fearless of the destructive action of oxygen,—behold, I say, formed, the septic dust (*poeria*), and see us prepared for the intelligence of that which but a little ago appeared so obscure; we can now understand the insemination of putrescent liquids by atmospheric dusts (*poerias*), and we can comprehend the permanence of putrid disease caused on the surface of the earth.

I beg of the Academy not to permit me to abandon these curious results, without bringing into prominence one of their principal theoretic consequences. In the commencement of these investigations, (for they have but commenced,) when already a new world has been revealed to us, at what should we aim with most insistence? It is the peremptory proof of the fact, that there exist morbid agencies, which are transmissible, contagious, infectious, whose real cause resides essentially and uniquely in the presence of microscopic organisms. There is demonstration, that as regards a certain number of diseases, we ought to abandon forever the ideas of spontaneous virulence, and of contagious and infectious elements suddenly born in the bodies of man and animals, and fitted to give origin to diseases which fly around and propagate themselves under identical forms; opinions all fatal to medical progress, and which have produced the gratuitous hypothesis of spontaneous generation, of albuminoid ferments, hemiorganism, archebiosis, and so many other conceptions without foundation in observation.

That which we ought particularly to investigate, is whether by the side of our vibrio, there may be an independent virulence, the property of solid or liquid matters; that, in fine, the vibrio is merely an epi-phenomenon of the disease, of which it is but a necessary companion. Now, what have we seen in the results of which I have spoken? We have seen a septic liquid, taken at a certain moment, when the vibriones were not yet transformed into germs, lose all its virulence through simple contact with the air; and, on the contrary, conserve this virulence, after being exposed to the air, with the special condition of having been in a thick layer, during some hours.

In the first instance, after the loss of virulence,

from contact with air, the liquid is incapable of rehabilitating it by culture, but in the second, it preserves and can propagate anew this virulence, even after having been exposed to air. It is not therefore possible to sustain that outside of, and by the side of, the hidden vibrio, or of its germ, there may be a proper virulent matter, solid or liquid; nor can we suppose a virulent matter which may have lost its virulence at the same time that the adult vibrio dies; for this pretended matter ought equally to lose its virulence, when the vibriones transformed into germs are exposed to the air.

Since then, in this case, the virulence persists, this fact can only be in consequence of the exclusive presence of the corpusculous germs. There is but one possible hypothesis for the existence of a virulent matter in a soluble state; it is that such matter, which may have been in insufficient quantity to kill, in our experiments of inoculation, may be incessantly supplied by the vibrio itself, whilst it is in process of propagation in the body of the living animal. But what does it import, if this hypothesis supposes the primordial and necessary existence of the vibrio?

This supposition has been held, and for its confirmation, labours without number have been undertaken beyond the Rhine.

Dr. Panum, at present professor at Copenhagen, and in his train a grand number of German physiologists, have advocated the idea that putrefaction develops, in matters subject to it, a soluble poison, which neither cooking, nor distillation repeated throughout many hours, can subdue, just as chemical reactions cannot suppress the effects of morphia or strychnia. This chemical poison has been, by Dr. Bergmann and his followers called *sepsine*. We have sought for this poison in the muscles and the liquids of the bodies of animals dead from septicæmia; but up to the present we have not discovered it, and we must form our opinion from the explanation of facts observed by the German physiologists. The minutiae into which it would be necessary for me to enter, would far exceed the prescribed limits of this communication.

To be continued.

URETHRAL CALCULUS IN THE FEMALE.

BY WELLINGTON N. CAMPBELL, M.D., NEW YORK.

Early in the month of October I was called upon to treat M. S. a young girl about fourteen years of age, who was under the care of an elderly governess. Her general appearance was that of one in

perfect health, with florid cheeks and rotundity of body. On enquiry I ascertained that she had complained for the last three weeks, of severe lancinating pains referable to the lower part of the abdomen and in her groins; more especially during efforts of micturition. The attendant stated that the girl had had her menses about eight months previous, but had seen no signs of them since, and concluded that they were about to return, hence the distress. I hesitated making an examination without positive signs indicative of local trouble referable to the urethra, deeming the pain on micturition due to the turgescence of the urethral mucous membrane and ovaries, preceding the menstrual flux. I prescribed accordingly an emmenagogue of ferri sulph. et ergotæ, with instructions to clothe her in flannel, apply warm fomentations over the genital and pubic regions, and to bathe her feet in warm mustard water. At eight o'clock in the evening of the same day I was summoned again, and was informed that she had made several attempts to urinate, causing her intense pain. On examining the vessel used I found no urine, but pus mixed with blood. This led me to suspect an abscess or foreign substance. An examination revealed the presence of a muco-purulent discharge, which I concluded came from the urethra, as there were no signs of an abscess; and the hymen was intact. I introduced a sound into the urethra and came in contact with a stone, which I removed by the method known as lithectomy; by dilating the urethra with a pair of curved serrated duck-billed forceps, then grasping the stone and making gentle traction, it was removed with but little difficulty. The stone was about the size of a hickory-nut, triangular in shape, and laminated. It was of the phosphate of lime formation, having an uric acid nucleus about the size of a small bean. The adjacent mucous membrane was much swollen, and inflamed from sympathetic irritation, which caused her some difficulty in micturition, arising from a spasmodic contraction of the sphincter vesicæ, but which subsided in a few days, by the internal administration of opiates, and the external application of a solution of borax and flax-seed water. The father informs me that they had resided in a lime-stone region, and that he had often observed calcareous deposits lining the kettle used for heating water, and that during the summer she frequently drank from the lime-stone brooks. I

prescribed a tonic containing nitric acid in small doses to counteract the phosphatic diathesis. Owing to the numerous lime-stone regions in the Dominion, and the liability to the occurrence of stone, would it not be judicious to advise the addition of an acid to the water used for drinking purposes, to counteract the tendency to its formation, especially where the lime is in such quantities as to form calcareous deposits in the cooking utensils?

Correspondence.

VOMITING OF PREGNANCY.

To the Editor of the CANADA LANCET.

Sir; I enclose a short statement of a case of the vomiting of pregnancy *cured* by a single application of silver nitrate to the os uteri. I did not think it worth while to report a solitary case, until I saw a single case of Dr. Sims, reported in your last issue. M. N., a large woman, of very dark complexion, enciente in the 3rd month with her second child, was suffering extremely from vomiting and the debility consequent thereupon. She told me she "had vomited the whole nine months with her first child, and took no end of medicine without relief."

She was much discouraged and had but little hope of help. On July 14th, I cauterized the os and vaginal cervix with solid stick of nitrate of silver through an ordinary pipe speculum. She said it smarted her considerably afterwards. She has never vomited since, and is now in excellent health.

Yours truly,

Brockville Nov. 6, '78. W. FRED. JACKSON.

Selected Articles.

CLINIC ON UTERINE FIBROIDS.

By T. Gaillard Thomas, M.D., New York.

SUBMUCOUS FIBROID.

The first patient whom I present to-day is Margaret C., a native of Ireland, thirty-seven years of age, and unmarried. She comes to us with a very interesting ailment, and as she is unwilling to give the history of it in public, I will run briefly over it for you as she related it to me in my private room. Eighteen months ago, having previously enjoyed

good health, she was taken with a violent uterine hemorrhage without any assignable cause. It has never ceased up to the present time, excepting for very brief periods, and almost all the other symptoms from which she is suffering, and which will be mentioned presently, are referable to this long continued loss of blood. As previous to the first appearance of the hemorrhage she had subjected herself to the risk of utero-gestation, she has gotten the idea that she is pregnant, and that the flow is due to the retention of the foetus in the uterus. Indeed, she declares that a physician distinctly told her that this was the case. This belief has naturally caused her a very great amount of mental suffering, and so much has she worried over the matter that she has become almost a hypochondriac in consequence. At present I find that her pulse is 120, and though it is, no doubt, somewhat excited by coming before you, it is probably never below 100. This is because her blood has become so impoverished by the constant drain upon the system, that the heart has to act much more frequently than it ought normally to do. She is very anæmic in appearance, and there is a systolic murmur at the base of the heart.

Suppose, now, that instead of coming here, this patient had presented herself at your office, what would have been the suggestions which would have presented themselves to your mind as accounting for the symptoms which are given? As the woman is thirty-seven years of age, one of the first ideas to occur might be that she was approaching the "change of life" and that the flowing was probably in consequence of this. But you must never take any such thing for granted; and in connection with the menopause it is well to remember that the irregularities incidental to that period are not nearly so marked as in this case. You should, therefore, insist on a physical examination before expressing any opinion whatever upon it.

Accordingly, with the view of finding out, if possible, the cause of this long-continued flooding, I proposed an examination to the patient, but found it somewhat difficult to make on account of her peculiarly excitable condition. The woman being placed on her back, when I passed my fingers into the vagina I at once felt quite a large mass protruding from the os uteri, which seemed globular in outline, and was altogether too hard for any product of conception. I felt confident that it could be one of only two things, what I show you in this model (a fibroid projecting from the mouth of the uterus), or what I show you in this one (an inverted uterus.) Now let us suppose that you were practising in some remote district, where it was impossible for you to call into consultation any expert in such matters, and this case should come into your hands. It would be very important for you to decide which of these two conditions was present, so that you might know whether to re-

move the mass or not; and the question naturally arises whether it would be possible for you to determine the matter with absolute certainty. I do not hesitate to say with the greatest confidence that it would; and I will show you in what manner it could be done. In the first place, one is not able to make out the character of the mass by grasping it with the fingers. Some authorities have declared that an anæsthetic should never be given when you are about to remove a fibroid, on account of the value of the sensations of the patient in a diagnostic point of view. I am quite sure that all manipulations would in our nervous patient cause an outcry which would render this means of diagnosis very unreliable. How then shall we settle the diagnosis? The method that I employed in the examining-room was as follows: I first resorted to conjoined manipulation, the patient still lying upon the back. Now, by this means we ought to find simply a vacant space in the ordinary position of the uterus, in case the organ is inverted; but, instead of that, I could distinctly make out a firm, solid body in this situation. Next, I placed the woman upon the side, in Sim's position, and, after the adjustment of the speculum, endeavored to introduce the uterine sound. I had no difficulty in slipping it around past the tumor into a cavity, which there could be no doubt was the cavity of the uterus, to the extent of two and a half inches, and in the normal curve of the organ. Furthermore, I rocked the sound backward and forward while it was still in the cavity, and placing my disengaged hand upon the abdomen, I could very plainly feel the fundus moving under it. Then finally, in order to make assurance doubly sure, I passed the sound into the bladder, and, introducing the forefinger of my other hand into the rectum, I could again feel the same hard mass between them which I had detected on conjoined manipulation; while, if the uterus had been inverted, the end of the sound would have been separated from the finger only by the walls of the bladder and rectum. If you were so situated as I have intimated, and had obtained these results by your examination, you could be perfectly certain that you had a fibroid, and not an inverted uterus, to deal with, and need feel no hesitancy about operating.

Now as to the operation demanded here; what is the best method of performing it? As the patient lives in a remote part of the city, and is furthermore not altogether in a normal mental condition, I should not be at all willing to run the risk of operating at the clinic, unless I should put in a very firm tampon before sending her away, and could feel sure that she had some reliable physician to look after her when she had returned home. I want her to enter my service at the Woman's Hospital, so that I can operate under the most favorable circumstances; but she expresses herself as being entirely unwilling to go into the institution.

I fear, therefore, that she will pass from our notice, and that these profuse hemorrhages will go on, and perhaps increase, until she will finally succumb to them. The method which I should adopt is this: I would place the patient on the side, and, having introduced the speculum, seize and make moderate traction upon the fibroid by means of a pair of vulsellum forceps. Then with a spoon made of steel, nickel-plated or covered with silver, and having a serrated edge, which I have described under the name of the "serrated scoop," and which I have found exceedingly useful in such operations, I would cut through the attachments of the tumor, completely severing it at the base. The separation is accomplished with the greatest rapidity and ease in this manner, and such a sawing movement is not accompanied by much hemorrhage, for the reason that the vessels are so much bruised during their division.

This instrument is especially adapted for the removal of fibroids with very large bases, and several times I have been able to accomplish this successfully by it in cases where I had previously failed by other means.—*Med. Record.*

ON DIGITAL DILATATION OF THE OS IN LABOUR.

By W. STEPHENSON, M.D., F.R.C.S.E.

When in normal labour the membranes are ruptured, whilst the os is not obliterated, the posterior part of the head clears the os first, the anterior being still held back by the rest of the cervical tissue. There is a clear gain by this movement, the head is more flexed, a smaller diameter is presented, and the rotation forward of the occiput becomes easy. This is the movement we must not disturb, but if possible facilitate. In aiding labour, therefore, at this stage the support and upward pressure must be exerted only so as to push, as it were, the lip of the cervix *over the occiput*; it must never be done over the forehead. A careful diagnosis of the position of the head must be made, and the direction of the support determined accordingly. The part selected should never be the *anterior* lip, as described by our authors. In the first position of the head the part corresponds with that opposite the left thyroid foramen, and comes readily to the fingers. In the second position it is opposite the right thyroid foramen. In the occipito-posterior position the treatment is carried out less readily, but can still be accomplished, the direction of the force being towards the corresponding ilio-sacral synchondrosis. The success of the manœuvre is dependent upon aiding the occiput to descend first. If then it be practiced at haphazard, and always in the same direction, failure is certain to follow in many cases. By its

improper use the anterior portion of the head may be enabled to lead, and the normal mechanism is disturbed. If the pressure be exerted at the side of the head, as it will be if directed immediately behind the pubes, dilatation does not take place, and the head is really held back. The pressure must be exerted only during a pain, and the patient be directed to bear well down. The efficiency of the uterine action is thereby greatly increased.

This method of aiding labour need not be confined to protracted cases; gentle and properly directed support is of advantage in all. The force employed need not be more than is represented by the word support. A due amount of chin-flexion is secured, and upon this depends the facility of the subsequent rotation of the occiput. More especially is this of importance in the occipito-posterior positions; if attention be paid to secure early and full flexion of the chin, no difficulty will be experienced in the rotation. Before it is possible in the latter cases to slip the cervix over the occiput an initial degree of chin-flexion is necessary. If the forepart of the head is on a level the occiput is beyond the range of the fingers, and the manœuvre is impossible. Aid may then be extended by pushing the forehead upwards during the interval of the pains and retaining it as far as possible in that position by pressure during the contraction of the uterine walls, and repeating this manœuvre until the posterior fontanelle can be felt.

Greater precision may be given to our opinions regarding the use of digital dilatation by the more recent advances of our knowledge regarding the changes which occur in the body and cervix of the uterus during the first stage of labour through the researches of Litzmann, Bandi, Braune, and Luschka. The lower uterine segment of the body of the uterus and the tissues of the cervix both undergo dilatation; but in the former the transverse expansion is associated with marked shrinking or shortening of its longitudinal diameter, whilst the latter is greatly stretched or lengthened. The division between uterine segment and the cervix, is what is known as the internal os, whilst the external os is what we recognize as the os of ordinary obstetric language. The distance between these, as shown by Braune's frozen section, may be as much as four inches. In normal labour the dilatation of the internal and external os go on simultaneously, the former slightly in advance of the latter. This relation, however, may be deranged. The internal os may be fully dilated whilst the external is very small. We cannot, however, get any degree of dilatation of the external os without the previous opening of the internal. The opinion I would advance is this, that digital dilatation can exert a beneficial action only upon the cervical tissue, we cannot by this means aid the

expansion of the lower segment of the uterine walls. So long, therefore, as delay is associated with incomplete dilatation of the external os, digital interference should not be employed; but when delay is due to want of dilatation of the external os whilst the expansion and retraction of the internal has well advanced, we may expect benefit from artificial means. The degree of dilatation of the internal os I believe we can estimate by the condition of the upper portion of the vagina. When the former is complete the latter also is fully expanded and drawn upwards. If the external os has not been simultaneously dilated, the cervical tissue will be felt stretching across like a diaphragm, with a varying degree of thickness and resistance. If, however, the internal os be not fully dilated the upper portion of the vagina will be found lax and attached near the os, or curving in towards it. Digital dilatation will then have no beneficial effect unless it be by stimulating the uterine contraction. But when the diaphragm is developed it will yield to judicious gentle manipulation; if the os be small by a rotatory action of the fingers; when once half-way dilated, and the head in actual contact, by support and gentle pressure of the lip in the direction of the occiput. A clear conviction should also be established that the cause of delay is in the cervical tissue only, and not due to want of rupture of the membranes, or to malposition of the head, to abnormal direction of the uterine axis, or to narrowing of the pelvic brim. Many cases of tardy dilatation are due to these causes, and of course cannot be aided by artificial dilatation.

By care in diagnosis the time when digital dilatation may be employed with advantage can be readily determined, and if practiced as I have indicated, with due regard to the mechanism of labour it may be employed with precision and safety. It affords material aid, increases the effective character of the pains, insures and facilitates the normal movements of the head, and if properly employed, is free from all danger to the patient. It is a proceeding, therefore, which merits recognition at the hands of obstetricians, more than it has hitherto received. By extending our aid in the first of labour by watching and furthering the normal mechanism, I am confident that we may very materially lessen the frequency with which in recent times instrumental interference is deemed necessary.—*Obstet. Journal.*

MANAGEMENT OF BREECH PRESENTATIONS.

BY PROF. THOMAS, NEW YORK.

Now comes the important point which I wish to make in connection with the case; and that is, that if you treat your breech presentations properly, you will seldom lose the child. If you will examine

the authorities on obstetrics, you will find that some give the proportion of deaths at one in six cases, others at one in five, others at one in four, and still others, if I remember rightly at one in three. I do not wish to boast about the matter; but I can truthfully say that out of twenty-five cases, I have not lost a single child. In this list there are none of version by the feet; but all are genuine original breech cases. This happy result is not to be attributed at all to any special skill on my part, but simply to the method of treatment I have adopted, and which any one can employ.

Of course, there are some cases of breech presentations which are necessarily fatal, and among the conditions causing such a result, I may mention deformed pelvis, narrow vagina, and unusually large head. But aside from cases where such conditions exist, I am convinced that a vast number of children's lives are needlessly sacrificed in breech cases.

The plan which I would advise in these cases is the following: As soon as you have discovered that the breech is presenting in any particular instance, at once make every preparation for the delivery. Then wait quietly until the breech comes down into the vagina. If the ordinary course is pursued, the chances are very great that the child will be lost. In vertex presentations the head distends everything, and the child is practically independent of the mother as soon as the external air reaches the nose and mouth. But the case is very different when the breech comes first, for by the time it is born the uterus is exhausted, or if it continues to contract, is very likely to cast off the placenta. It may be that one minute more will finish the delivery, but that one minute is quite enough to finish the child also. The above is one great factor in ordinarily causing the death of the child. The other is furnished by the physician himself. When the child comes down, the accoucheur works at a great disadvantage, on account of his position in relation to the patient. In such cases, if you listen carefully, you will not infrequently hear a little crack, which is nothing more or less than the breaking of the child's neck. The *processus dentatus* enters the spinal cord, and the life is forever destroyed. But to resume the recital of the method advised. Do not hurry the early stages of a breech case, and never put your finger (and still less a blunt hook), around the child's groin. At this period the breech is aiding you very materially, all the time, by its action in dilating the parts. But the instant that you find it distending the perineum you should change your tactics entirely. Having placed the patient on her back across the bed, with her feet resting on two chairs, give one limb into the care of the nurse, and the other into that of a competent physician, whom you previously summoned, and who should always keep one of his hands free, so that he may assist you as required. The chief principle in the delivery is this, that the

force that is to expel the child must come from above, and not from below. Therefore, now give a large dose of ergot hypodermically, in order that it may produce a powerful effect instantaneously upon the uterus. As soon as the cord comes within reach, get hold of it; and then ask the physician who is assisting you to press down upon the head with all his force. The patient, if she is a woman of any force of will at all, ought not to be under the influence of any anæsthetic, and you should call upon her to bear down as strongly as she possibly can; telling her that the life of her child depends upon her exertions. When all these forces are called into play, the result is usually a very speedy delivery. In a second or two you can get two fingers into the child's mouth, and thus make traction by means of the inferior maxilla.

When this patient came to me as I have mentioned, I told her that I thought she could be delivered of a living child, even though it should present by the breech, as seemed altogether likely. Her fifth labor, like the two which had preceded it, really proved a breech. I was unable to attend her myself, but my assistant, Dr. Walker, did so, carrying out the plan which I have indicated, and the result was a living child, to the great joy of the mother. It is quite probable that the laceration of the cervix which we have found present here was the result of this delivery; but a human life once destroyed can never be restored, which is certainly not the case with a human cervix.—*Med. & Surg. Reporter.*

AFTER TREATMENT OF TRACHEOTOMY.—Dr. Vogt, quoted in the *Medical Press and Circular*, proceeding from the fact that with the present methods of treating tracheal croup most children perish, even after operation, from continued formation of the membrane, suggests glycerin as a means of hindering the formation. It is known that when this substance is applied to the mucous membrane a profuse watery serous secretion is excited; and this is relied upon by Dr. Vogt to remove or prevent the adhesion of the false membrane. In the case of a little six-year-old girl treated in this way a cure resulted. Glycerin mixed with an equal quantity of water was inhaled, by means of an inhalation apparatus connected with the tracheal tube, every half-hour. Dr. Vogt has also used this treatment in recent cases of croup, where tracheotomy has been thought unnecessary or unadvisable. Disinfection of the original patch in the pharynx by means of chlorine or bromine water preceded the use of inhalation.—*Med. & Surg. Reporter.*

EXAMINATION QUESTIONS ROYAL COLLEGE OF SURGEONS, ENGLAND.—The following questions were given at the primary examination for the diploma of member on November 1st:—1. Describe the minute anatomy of a Peyer's Patch, and

contrast the structure of the small and large intestine. 2. What is the average amount of fluid required by the body daily? Mention the chief circumstances by which the demand for it may be modified; the several channels by which fluid is eliminated, and the condition which may lead to variation in the amount discharged by each channel. 3. Describe the Occipito-Atlantal joint, and all the ligaments which unite the Skull to the Vertebral Column. 4. Describe the dissection required to expose the Transversalis Abdominis and the Fasciæ connected with it. 5. Give the dissection required to expose the Radial Artery from the Styloid process to its termination. 6. Describe the Fornix and its relations.

REMOVAL OF THE ASTRAGALUS, SCAPHOID, AND CUBOID BONES.—Mr. West presented at the meeting of the British Medical Association a paper on this subject, relating a case in which he performed this operation. The case was one of aggravated talipes equino-varus in a woman aged 23, on whom Mr. West operated by the plan suggested by Mr. Richard Davy, of the Westminster Hospital. Models of the limb taken before and subsequently to the operation, and also the tarsal bones, the cuboid, astragalus, and scaphoid removed at the time of the operation (May 19, 1878), were shown. The result, as seen ten weeks after the operation, was eminently successful. Mr. West considered that, although tenotomy was the most suitable operation in infants and young children, in adults, or in cases where tenotomy had been tried and failed, resection of a wedge-shaped portion of the tarsal bones was an excellent operation; and that in future no case of talipes, whatever might be the age of the patient or the severity of the deformity, need be looked upon as hopeless. The use of Esmarch's bandage, and the antiseptic method of subsequent treatment, in operative procedures of this kind, deprived them of the risks which such an interference with the tarsus and its numerous articulations would otherwise involve.—*The British Medical Journal*, August 24, 1878.—*Med. Record*.

PRAYER AS A MEANS OF STAYING EPIDEMICS.—We are far, as has been already said, from condemning the appeal to religious considerations and influences in an extremity like this, but it should be put on enlightened grounds, and become a means of incitement to nobler action. Prayer is efficacious just in proportion as it reacts upon the supplicant to inspire a higher activity, and in this way it may become a potent agency for moving men in great emergencies. This being the true point of view, in place of the proclamation issued by Governor Bishop, we should have preferred to see something like the following: "Whereas, a plague is desolating various Southern cities, which all means hitherto adopted have failed to arrest,

let the devout people of Ohio gather in their several places of worship without delay, and, reverently recognizing the Divine wisdom in this fearful dispensation of suffering, humbly confess their sins of neglect and omission, their ignorance, carelessness, and culpable apathy in regard to all sanitary matters, and their want of quickened sympathy with the afflicted communities, and register solemn vows to Heaven that they will at once enlarge their measures of help to the devastated towns, and will in future be more vigilant and faithful in discharging the religious duty of guarding and promoting private and public health."—Prof. Youmans, in *Popular Science Monthly* for October.

THERAPEUTICS IN THE VIENNA SCHOOL—A correspondent of the *Chicago Medical Journal and Examiner* writing from Vienna says that, after listening for some time to the lectures of Prof. Bamberger and hearing but little said of therapeutical measures, he asked a German physician why Prof. Bamberger did not tell something about treatment. The reply was, that physical diagnosis was his only forte; that if he encountered a case in the diagnosis of which there was doubt, his great fear was that the patient, before his death, might pass from under his observation, and that he might be unable to clear up the mystery by a post-mortem examination.

Prof. Duchek, he says, although perhaps not so widely known as Prof. Bamberger, is far the better clinical teacher, and it is from him that one gets most of the practical hints in therapeutics that are to be obtained there. In the general résumé that Prof. Duchek gave at the end of the winter semester of his plan of treatment, he began by laying down the following maxim: "Give no medicines that will materially disturb the functions of life in your patient." He said further that in the early years of his practice, he had used a wide range of remedies, and was ever ready to make trial of all the new and much-vaunted preparations that were brought forward, but having been almost invariably disappointed in their use, he had now settled down to the employment of about one dozen remedies, seldom giving any others. Of these, the principle are quinia, digitalis, iodide and bromide of potassium, opiates, the salicylates, the acetate of ammonia, the mineral acids, ipecac. castor oil, the saline cathartics, and occasionally calomel. He never uses either aconite or veratrum. He believes that the influence that these last remedies exert in lessening the muscular force of the heart, as well as the blood-pressure in the arteries and veins, is, in the vast majority of cases of febrile and inflammatory disease in which they are prescribed, absolutely injurious.—*New Remedies*.

A case of hydatids of the right lung simulating pneumothorax is reported by W. H. Broadbent, Physician to St. Mary's Hospital, in the *London Lancet* of October 27th.

THE CANADA LANCET.

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TORONTO, DEC. 1, 1878.

SCIENCE VERSUS TRADE.

We continue to receive regularly, the *Revista Medico-Quirurgica*, an excellent semi-monthly periodical, published in Buenos Aires, S. A., for which we tender its talented conductors our warmest thanks, with the assurance that we never fail to peruse, with earnest attention, its interesting and instructive contents, and did our space permit, we should present our readers more copious extracts than we hitherto have appropriated. In the number for Sept., we have read, with not unmingled gratification, the correspondence of Dr. Dupont, of Buenos Aires, under date 11th August, 1878, in which he gives a succinct summary of the proceedings of the *Universal Exposition* then in progress in Paris. As a matter of course Dr. Dupont's observations are mainly devoted to the medical department of the exposition. We commend to our readers, the following rather caustic allusions to some of the exploitations of certain members of our fraternity, merely premising that it is not outside the range of probability, that similar indiscretions are occasionally fallen into, in the medical assemblages of this country. Dr. Dupont writes thus: "All the sessions have passed in accordance with the announcements. A few members seemed to have come solely for their own benefit, or for that of others, to read their reclamatory productions, whether for the greater glory of such or such a one, or in favour of the pecuniary interests of some other aspirant to notoriety, or such and such a laudable enterprise.

In the Thursday session, the true lovers of science itself, and not of science as the basis of mere trade, more or less legitimate, were constrained to listen to an English member of the Congress giving a long

and bombastic lecture on the *salicylates*, as the best and only reliable disinfectant; not, however the salicylates in general, of commerce, but on those which a certain English company, (which I shall take care not to name) were pushing into notice. If one must believe in this worthy son of positive and egotistic Albion, there can be neither health nor hygiene outside the use of the salicylates of his extolled company. Many of the members were surprised that French amiability and courtesy towards strangers, prevented the president from prohibiting this puffing exhibition. Having however tolerated it, there was a unanimous silent determination to pass the subject unheeded."

We cannot refrain from endorsing the decision, in the above instance, of the Paris medical congress, and we would strongly recommend to all our Canadian societies, to pursue a similar course, whenever it may appear to be the purpose of the reader of a paper, to advertise his own merits and singular achievements, rather than to bring under notice original and practically valuable facts, and we would here take the liberty of observing, that the reader should be careful as to the actuality of his adduced facts. Cullen has said, with too much truthfulness, "there are more false facts than false theories."

CEREBRAL LOCALIZATION.

Broca was among the first to investigate the subject of how far the brain exercises an influence on the motions of animals, and the exact location whence the power exerted over the various faculties was derived. One of the facts demonstrated was that when a person is deprived of the faculty of speech by a stroke of apoplexy, there invariably exists a lesion at a certain spot in the brain, viz., in the anterior region and on the posterior side of the third frontal convolution to the left. This led to the conclusion that the seat of the faculty of speech in man was located at this point, and from this has been inferred a special place for every intellectual action.

The method pursued is to remove part of the skull of an animal, then to apply electric wires to different parts of the brain thus laid bare, and observe the motions produced. No response is received from certain points, so that it was inferred that it is not the whole brain that acts upon the

muscular system but only special parts. Ferrier operated on monkeys in presence of the London Royal Society, and according as he touched various parts of the cerebrum, the ape would shake his fist at the audience, raise or stretch out a leg, or make grimaces. He showed that in the monkey, the centre of motion of the tongue corresponds exactly with that to which the faculty of speech pertains in man.

The advantage of this knowledge is that the surgeon may know precisely the point of the skull over which to apply the trephine, and in illustration of this a case is reported of a man who was brought into a French hospital after having received a severe blow upon the left temple. On coming to himself he could only speak with difficulty, and would call a fork an umbrella, a lamp a hat, etc.; his right arm was partly paralyzed. The surgeon at once applied the trephine over the spot indicated by the symptoms resulting, and hit upon a piece of bone that compressed the brain. The splinter was removed, and the use of the right arm was at once regained. A few days later the impediment to his speech disappeared, and he left the hospital cured.

MEDICAL EDUCATION IN THE UNITED STATES.

Dr. Frank H. Hamilton, of New York, has been delivering an address at the American Academy of Medicine, Easton, Pa., on "Medical Education," which was ordered to be published, and a copy is now before us. The founders of the Academy seek to aid in the remedying of a great and universally admitted evil—namely "imperfect preparation for the study of medicine, and its almost inevitable sequence, imperfect qualification on the part of those who are admitted to practice." The Dr. in dealing with the subject under consideration, first addresses himself to the nature and extent of the evil complained of; next, its causes and consequences; and in conclusion, the remedy to be applied. With 4 or 5 exceptions, the licensing boards, and medical colleges in the United States, require no preliminary education or examination; there are no examinations during the course of study, the term of which never exceeds three years; and the actual attendance at college is never more than 10 months, often much less. The examinations are conducted

by the professors, and the latter are dependent on the size of their classes for their remuneration. The colleges license about 3000 annually and there are already about 70000 physicians in the United States, or about 1 to every 600 of the population. This is not alone the case in sparsely settled districts, but even in the state of New York, there is 1 to every 642 of the population. Dr. Hamilton also deplores the fact, that notwithstanding the large excess of production there is no foreign demand for the article. On the contrary, most governments have forbidden its introduction and use. The sources of the evil are to be traced he thinks, to the plan or system of dependence upon the tuition fees alone, for the support of the teachers, and which necessarily demands that the conditions of admission and licensing, shall rest mainly or exclusively with the teachers. He has no hope that the Federal Government will ever attempt to regulate medical education; and as for the State Governments, he very properly does not wish to see any union of medicine and state, which is as much to be dreaded as church and state. Nothing he says, is to be expected from state endowments, and very little from state legislation. He pays a high compliment to the intelligence and practical experience of the professors and teachers in the various schools and colleges, and their sincere desire to raise the standard of medical education, nevertheless the fact remains, that these colleges graduate and license to practice a great number who are totally unqualified. He does not however lay the blame at their door, but rather apologizes for this seeming inconsistency. The remedy which he proposes for this state of affairs is the "creation of a sound public sentiment which shall in some measure influence medical colleges and medical men" but above all, the young men, who are contemplating the study and practice of medicine. The latter must be persuaded that it is unbecoming for them to enter upon the study of a learned profession, without suitable preliminary education, and that it is shameful for them to enter upon the practice of medicine, without a competent knowledge of their profession. All this seems very well on paper, but it is expecting too much of human nature as at present constituted. No good will ever be accomplished in this way. We would advise our friends over the line to try our Ontario Medical Act in several of the States and test it for

themselves. It has worked well in Ontario, and we do not see why it could not be made to apply to the various States of the union. The grand feature which commends it is, that there is no state interference, but the profession has the regulating of medical education, and the conferring of the licenses entirely in its own hands. Improvements might also very easily be made in its application to the wants of the profession of the United States.

TRINITY MEDICAL SCHOOL ANNUAL DINNER.

—The annual dinner of the above school was held at the Rossin House, Toronto, on the 28th ult. The Chair was occupied by Mr. McIlhargey; the Vice-Chairs by Messrs. D. McTavish and A. Ferguson. The attendance was very large, about 120 sat down. Among those present, in addition to the Medical Faculty and Students of Trinity Medical School, were the Hon. A. McKenzie, Hon. Geo. Brown, Chief Justice Moss, Dr. Daniel Wilson, Mr. Justice Cameron, Revds. Dr. Topp, A. J. Broughall, A. H. Baldwin, and Prof. Jones, (Trinity University), Lieut.-Col. Durie, Professor Ramsay Wright, Mr. Vankoughnet, Dr. Strange, M.P., Drs. Canniff, Ellis, D. Clark (Asylum), O'Reilly, and Mr. Gillespie of the Toronto General Hospital.

The tables were beautifully and tastefully decorated. On the centre one, among the handsome pyramids was a memorial monument in sugar, surmounted with the bust of Hippocrates and bearing on its sides the names of departed worthies. On one side was engraved "To the memory of Hon. Dr. Rolph, Canada's greatest medical teacher"; on the other "To the memory of Dr. E. M. Hodder, our late lamented Dean." Immediately in front of the chairman, was a design of the amphitheatre and dissecting room of Vesalius, and on each side a biscuit basket in the form of a pestle and mortar. The band of the roth Royals as present, and discoursed some excellent music suitable to the occasion.

After toasts to the "Queen," "Governor-General, and Lieutenant-Governor," the Chairman proposed "The Army and Navy," which was responded to by Lieut. Col. Durie and Dr. Thorburn. The "Dominion and Local Legislatures" was next proposed by the Vice-Chair, and was responded to by the Hon. A. McKenzie, Hon. Geo. Brown, and Dr. Strange. Mr. McKenzie in responding

said that the Legislatures were a credit to the country, and notwithstanding the ups and downs of political life the machinery of Government went quietly on. He also paid a high compliment to the services of the Hon. M. C. Cameron, who has been recently elevated to the Bench. In regard to Sanitary matters, while the Local governments should initiate measures, he thought the Dominion Parliament had also power to deal with that subject. He was pleased that Trinity Medical School enjoyed so great a measure of prosperity. The "Learned Professions" was responded to by Rev. A. H. Baldwin, Justice Cameron and Dr. Canniff. The next toast was the "Universities with which we are affiliated," responded to by Prof. Jones for Trinity University; Vice-Chancellor Moss and Dr. Daniel Wilson, for Toronto University; and Mr. McKinnon for Halifax University. Vice-Chancellor Moss said in the course of his remarks, that he had been reported as saying at the dinner of the Toronto School of Medicine, "that he hoped that school would always be represented on the Senate of Toronto University." He repudiated that statement, and said that they knew no representatives of schools, as such, but that all were there for the advancement of the interests of their fellow-graduates. Dr. Wilson expressed his sympathy with the Trinity Medical School. He also alluded humorously to the spurious medical science which was supported by the advertising columns of the daily papers.

The "College of Physicians and Surgeons of Ontario" was responded to by Dr. D. Clark. "General Hospital and Trustees," by Dr. O'Rielly and Mr. Gillespie. The latter expressed a hope that the Government would see their way to make the Hospital entirely free. "Trinity Medical School" was responded to by Dr. Geikie, on behalf of the Faculty. He alluded to the prosperity of the school, and its relations to the affiliated Universities. At the close of last session, there were 35 students of this school up at the various examinations in the University of Toronto, and at the last convocation of Trinity University, 36 entered as matriculants. There were in attendance during the present session, close upon 150 students. The "Sister Institutions" was responded to by Dr. Thorburn. A number of songs and choruses were interspersed among the speeches. After toasts to the "Ladies," "Press," &c., the company broke up.

GASTROTOMY.—A successful case of gastrotomy has lately been reported in the *Lancet*, (August, '78.) The operation was performed by Prof. Tren-

delenburg, of Rostock. The patient was a boy 8 years of age, who had swallowed sulphuric acid by mistake, resulting in complete constriction of the cesophagus. The operation was performed on the 28th of March, 1878, and the patient is alive and well. The stomach was made fast to the margin of the wound by 14 stitches of silk thread, surrounding a space of about $\frac{1}{8}$ of an inch in diameter. An incision was then made through the walls of the stomach, and a drain pipe inserted, through which nourishment has since been introduced. An unsuccessful case is also reported in the *Lancet* (Nov. 2) by Dr. Bradley of the Manchester Royal Infirmary. The patient, a boy 14 years of age, died apparently of inanition, on the 28th day following the operation.

ROGERS' GROUPS OF STATUARY.—These groups of statuary are now so well known that any lengthened allusion is quite unnecessary. They are made of clay-colored material, and for beauty and life-like expression cannot be excelled. The "charity patient" or "playing doctor" are favorite groups for physicians' offices, but there are a large number to select from. As works of art, Rogers' groups are beyond criticism. A number of historical and other groups have been placed in the museum of the Normal School, Toronto, and are universally admired for their correctness and beauty of finish. One of these groups would be very suitable for a Christmas box. Send to Mr. Rogers, 1155 Broadway, New York, for Catalogue of portraits of groups, prices, &c.

TAPE-WORM IN CUCUMBERS.—Dr. Leidy, of Philadelphia, has announced the discovery that cucumbers are liable to be infested with tape-worm. At a meeting of the Academy of Sciences, Phila., he exhibited a specimen of tape-worm taken from the inside of a large cucumber. It is said to have had all the characteristics of a true tape-worm, but belonged to an unknown species, the peculiarity being that the ovaries, containing the round yellow eggs, are confined to the anterior extremity of the segment.

TRINITY COLLEGE CONVOCATION.—The following gentlemen received the degree of Doctor of Medicine in this University on the 14th ult. A. J. Sinclair, of Paris, and W. McKay, St. Thomas.

TORONTO SCHOOL OF MEDICINE ANNUAL DINNER.—The annual dinner of the Toronto School of Medicine was held in the Rossin House on the 8th ult. In addition to the Faculty and students, the following gentlemen were present;—Chief Justice Moss, Prof. Goldwin Smith, Prof. Nelles, of Victoria College, Prof. Croft, Prof. Ramsay Wright, Dr. O'Reilly, Messrs. T. McCrosson and J. Gillespie, Hospital Trustees; Lieut.-Col. Otter, Drs. Langstaff, White, Cameron, Kennedy, Pollard, Nevitt, A. H. Wright, D. Clark, (Asylum), Strange, M.P., J. McConnell and W. Clark.

The chair was taken by Rev. Mr. McConnell; the first and second vice-chairs by Messrs. A. Anderson and L. M. Sweetnam, students of the School. The dining room was tastefully decorated. After the removal of the cloth the usual loyal and patriotic toasts were proposed, and duly honored. The "Active Militia" was responded to by Lieut.-Col. Otter and Dr. Thorburn. The "Dominion and Local Gov'ts," by Dr. Strange, M.P. The "Toronto University" by Vice-Chancellor Moss, Dr. Richardson and Prof. Croft. Justice Moss alluded to the recent changes in the curriculum, and believed that all would approve of it in the long run. He also recommended a more intimate study of the physical sciences, if we were to keep pace with our brethren in Europe, especially in Germany. The "College of Physicians and Surgeons" was responded to by Dr. Clark. The "Toronto School of Medicine," was responded to by Drs. Aikins and Barrett. The "Toronto General Hospital" by Dr. O'Reilly and Mr. Gillespie. The "Sister Institutions" was responded to by Prof. Goldwin Smith, Dr. Nellis, for Victoria College, Prof. Ramsay Wright, for Toronto University, and Dr. Kennedy for Trinity Medical School. Songs and humorous recitations were interspersed among the speeches. After toasts to the "ladies" and the "press," the meeting closed, having spent a very pleasant evening.

TORONTO UNIVERSITY MATRICULATION.—Medical students who have passed the matriculation examination of the College of Physicians and Surgeons of Ontario prior to the 1st of October, 1878, will have their certificates of examination accepted by Toronto University, and may register the same on or before the 1st of March, 1879—the time having been extended to this date.

MONTREAL COLLEGE OF PHARMACY.—We have received notes of an address delivered by Prof. Bemrose at the opening of the eleventh session of the Montreal College of Pharmacy. We must express our admiration, both of the matter and the arrangement of this address. That the pharmacist should be properly educated to fill the onerous position he occupies, must be manifest. No one knows this better than the physician. The most skilfully devised and best adapted treatment is utterly powerless, if the preparation of the medicine has been careless or uncertain. The bold outline sketched by Prof. Bemrose, will, we have no doubt be completely filled up by the class lectures and practical work. The College has done good service in the past. The students educated here have been most successful in passing their examinations, and have taken a good stand among their confrères. Prof. Bemrose was connected with it only we believe for the past session, but judging from the address, we feel sure that the portion of instruction which falls to his care, will contribute to the advancement of the students in the way best calculated to make them efficient pharmacists.

SCRIBNER'S MONTHLY,—conducted by J. C. Holland. The American edition of this periodical is more than 70,000 monthly, and it has a larger circulation in England than any other American magazine. Every number contains about one hundred and fifty pages, and from fifty to seventy-five original wood-cut illustrations. Several illustrated articles descriptive of Canadian sports and scenery have recently appeared in its pages, and the magazine during the coming year will devote much space to matters of special interest to the Canadian public. For subscription, see our commutation rates.

ST. NICHOLAS—Scribner's Illustrated Magazine for girls and boys. Messrs. Scribner & Co., in 1873, began the publication of St. Nicholas, an illustrated magazine for girls and boys, with Mrs. Mary Mapes Dodge as editor. Five years have passed since the first number was issued, and the magazine has won the highest position. It has a monthly circulation of over 50,000 copies. It is published simultaneously in London and New-York, and the Transatlantic recognition is almost as general and hearty as the American. See our commutation rates.

THE SANITARY JOURNAL.—We are in receipt of the Sanitary Journal for Nov., edited by Dr. Playter, and find it as usual, full of interesting and valuable papers, and suggestions regarding sanitary matters. The price has been reduced to one dollar per annum, so as to bring it within the reach of a larger number of subscribers. Its pages may be found useful to many of our readers, in view of the probable appointment of district Health Officers by the government, in the event of legislation during the approaching session.

PUBLIC PROSECUTOR.—The public prosecutor appointed by the Ontario Medical Council, has been instrumental in preventing a number of unlicensed practitioners from practising in the Province, and for so doing he deserves the thanks of the community. He complains however, that in several instances he has been hampered by the issuing of a stay of proceedings by the President. We can conceive of the necessity for a little leniency in certain cases, but it would save expense and trouble to all parties, if Detective Smith were informed of this fact in advance.

HONORS TO CANADIANS.—Dr. Osler of Montreal lately passed the examination of the Royal College of Physicians, London, and obtained the membership of that body. Drs. J. A. Dafoe and J. P. Rankin, of Trinity Medical School passed their final examination and were admitted to the L.R.C.P. and L.R.C.S., Edinburgh. Dr. A. Davidson of Trinity Medical School passed the final examination of the Royal College of Surgeons, England, and was admitted a member.

REMOVAL OF THE LOWER END OF THE RECTUM.—The successful removal of four inches of the lower end of the rectum and sphincter ani, for epithelioma was recently performed by Dr. Fenwick, of Montreal. The patient, a lady of seventy years, was reported as doing well at last accounts. There was inability to retain the fæces, but the sense of their presence was sufficient to enable her to make the necessary preparations for cleanliness.

COMMUTATION RATES.—By arrangements which we have made with publishers of medical and other periodicals, we can offer most advantageous terms to our subscribers. See our commutation rates for 1879, among advertisements.

VACCINATION IN MONTREAL.—The insane opposition to vaccination amongst the French population in Montreal, has happily subsided of late, and many that were formerly most bitterly opposed to it, are now ready and most anxious to have their children vaccinated. The influence of the Clergy has done much in bringing it about, coupled with the use of vaccine virus direct from the cow.

LAW OFFICE.—Mr. T. T. Rolph, son of the late Hon. Dr. Rolph has been recently called to the Bar, after a most successful and highly creditable examination. He has opened an office in Toronto at No. 30 Adelaide St., East, and will be pleased to transact any business for members of the medical profession or others, with which he may be entrusted.

The Hon. Dr. Rolph's widow still continues her boarding school for young ladies at 20 Gerrard St, West, and we are quite sure she will be happy to receive the daughters of any of the Dr's. old pupils.

Dr. J. A. Carlyle, of Dumfries, a Doctor of Medicine and of Laws of the University of Edinburgh, has placed the sum of £1,600 in the hands of the Association for the Better Endowment of the University of Edinburgh, for the endowment of two bursaries in the Faculty of Medicine.

APPOINTMENTS.—The friends of Dr. G. T. McKeough, M.D., Trinity College, Toronto, will be pleased to learn that he has been appointed House Surgeon to the Royal Free Hospital, London, Eng.

Dr. J. Brodie has been appointed Demonstrator, and Dr. J. A. Hutchison Assistant Demonstrator of Anatomy, in Bishop's Medical College, Montreal. Dr. Ross has been appointed Resident House Surgeon, Protestant Hospital, Ottawa.

REMOVAL.—Dr. J. A. Meek of Three Rivers, Que., has lately removed to New York. On the occasion of his departure his friends in Three Rivers presented him with a very complimentary address, accompanied with a gift of considerable intrinsic value.

Dr. D. Fraser has returned home, after an absence of upwards of two years spent in the Hospitals of Europe.

The death of John Hilton F.R.S., of London Eng., in the 74 year of his age is reported in our British Exchanges.

Books and Pamphlets.

THE ANTAGONISM OF THERAPEUTIC AGENTS AND what it Teaches. By J. Milner Fothergill, M.D., London Hospital. Philadelphia: H. C. Lea. Toronto: Willing & Williamson.

We have very great pleasure in noticing this very admirable essay, to which was awarded the Fothergillian Gold Medal of the Medical Society of London for 1878.

The modern therapist directed by the lights of modern pathology and physiology, assisted by vivisection, studies the nature, character and products of lesions, and considers the symptoms no further than as enabling him to arrive at a knowledge of the seat of the lesions producing them. The lesions however, sought by the therapist are not entirely those presented by the dead body, but those also revealed by the symptoms, and accounted for by the laws of physiology which the therapist should study, as it is these he is called upon to treat. He should be thoroughly acquainted consequently with the power of medicinal agents, particularly with those that by accumulation or overdoses are liable to act as poisons; with what they can really do, as also with the antagonising agents with which for safety they should be combined. Though there are entire classes of medicines, which influence all the organs with tolerable uniformity, still on the other hand it is not to be denied, that the most important medicinal substances exert if not their exclusive, at least, their principal action on certain individual organs. Thus nux vomica exerts its chief action on the spinal cord; opium principally affects the brain; digitalis and tobacco the heart; cantharides the genital and urinary organs; atropine on the brain and spinal cord; prussic acid on the respiratory centres of the medulla; chloral as a sedative to nervous centres and secondarily to the heart; physostigma or calabar bean, on the spinal motor tract; veratria primarily exciting, and secondarily paralyzing muscular action.

In short the most important medicinal substances act specifically on certain individual organs. To the practice of vivisection we are indebted for these

findings. Dr. Fothergill's essay, principally taken up with an enquiry into the antagonism of "Toxic Agents," embraces seven chapters 1st, Experimental Inquiry; 2nd, Practical Inquiry; 3rd, The Rhythmically Discharging Centres; 4th Action of Drugs on the Circulation; 5th Action of Drugs on Respiration; 6th Use of antagonism of Drugs in Actual Poisoning and 7th Use of antagonism of Drugs in Ordinary practice. Cases are given of the poisonous effects of physostigma neutralized by atropine; of the effects of chloral hydrate neutralized by strychnine; of morphine antagonized by atropine; of bromal hydrate by atropine; of picrotoxine the active principle of *Cocculus Indicus* by chloral hydrate etc. The converse however does not always hold good, the lethal action of chloral is not arrested by picrotoxine.

Aconite while not found to be antagonized by digitalis, was controlled by belladonna. Pilocarpine, the active principle of *jaborandi*, is counteracted by atropine. A series of experiments as to the antagonism of strychnine and nicotine have been made, but with results not as yet absolutely conclusive. Dr. F. remarks—"The lessons taught by the examination of the antagonistic action of certain toxic agents may be summed up as follows: We possess in digitalis, belladonna, and strychnine, agents which distinctly act upon the heart and produce more perfect ventricular contraction when desirable to excite it, as in cardiac debility. On the other hand in aconite, veratria, chloral, morphine and calabar bean, we possess cardiac depressants of a potent character, to be used with advantage in vascular excitement. In like manner agents affecting the respiration are to be arranged." We have been much gratified with this work, and our readers we are sure, will derive pleasure and profit from a perusal of it.

A TREATISE ON THE SCIENCE AND PRACTICE OF MIDWIFERY—by W. S. Playfair, M.D., F.R.C.P. London. Philadelphia: Henry C. Lea; Toronto: Willing & Williamson.

The issue of a second revised edition of this work in less than two years from the publication of the first, is sufficiently significant of the universally recognized merits of the book, both as an excellent manual for students, and a valuable work of reference for practitioners. Every one acquainted with this branch of medicine is aware of the fact, that the very worst case that can possibly happen

may be the first which a young practitioner may meet with, therefore the more need for him to furnish himself with a work that besides giving due attention to first principles, comprehends all the necessary information requisite for the successful management of difficult cases. In the six hundred and twenty four pages of the work, the author has done full justice to the various subjects treated. The information is conveyed in an energetic and agreeable manner, and no better work we conceive can be read by either student or practitioner. There are a few procedures in this work, represented as easy of accomplishment, when the abnormal position of the foetus is detected before labor has commenced, which, excepting in the hands of the author, Dr. Hicks, Matthew Duncan and a few others, we should take the liberty of questioning as simple and easily managed, more particularly as the success of the operation depends on being able to ascertain the positions of the head and breech through the uterine walls. We refer to cephalic and podalic version. Dr. Playfair describes cephalic version in Dr. Braxton Hicks' words, yet we imagine there are but few who could follow the rules. Podalic version in the four stages, is well represented by wood-cuts. Simple, however, as it appears on paper, we apprehend the generality of practitioners will yet have to depend upon introducing the hand into the uterus for the accomplishment of podalic version.

THE PHYSICIAN'S VISITING LIST FOR 1879. By Lindsay & Blakiston.

This is the twenty eighth year of publication of this excellent visiting list, which is so well known and highly appreciated. It comes in the same form as that of previous years, well bound in leather, with tucks, pocket and pencil. It is compact, of a reasonable size, convenient in form, and easily carried in the pocket. No physician can afford to be without one.

A GUIDE TO THE PHYSICAL EXAMINATION OF URINE, Second Edition, pp 175. By James Tyson, M.D., Philadelphia: Lindsay & Blakiston. Toronto: Willing & Williamson.

A careful examination of this little work, fully justifies us in recommending it to our readers. It is a very practical and concise work, and will be found of great value as a guide to the examination of the urine. The text is clear and comprehensive,

and includes much in the way of recent observation. It is also illustrated by wood engravings where they have appeared to the author necessary.

THE THROAT AND ITS DISEASES WITH 100 ILLUSTRATIONS IN COLOR AND 50 ENGRAVINGS ON WOOD, (pp., 316)—by Lennox Browne, F.R.C.S., Ed. London: Balliere, Tindall & Cox; Toronto: Willing & Williamson.

Dr. Browne is one of the great English authorities on throat diseases, and his work will be read with interest by the profession. The work, however, is intended more as a guide for the general practitioner than as an exhaustive treatise adapted for specialists, and as such it will be a welcome addition to the library. It is printed on good paper with bold type, and is well illustrated.

ANATOMY, DESCRIPTIVE AND SURGICAL, by HENRY Gray, F.R.S., with an introduction on general anatomy and development by T. Holmes, to which is added "Landmarks, Medical and Surgical," by L. Holden, F.R.S. Eighth edition. Philadelphia: H. C. Lea. Toronto: Hart & Rawlinson.

We gladly welcome the new edition of this well-known standard work on anatomy. The minute anatomy of the ear and kidney has been corrected, and also the introductory chapter, but the most important change consists in the addition of Holden's "Landmarks Medical and Surgical." This will be found of great practical use to the general practitioner.

BARNES ON THE DISEASES OF WOMEN. SECOND Edition, pp. 784. Philadelphia: H. C. Lea. Toronto: Willing & Williamson.

MEDICAL AND SURGICAL USES OF ELECTRICITY. By Geo. M. Beard, A.M., M.D., and A. D. Rockwell, A.M., M.D., New York. Second edition, revised and enlarged, with nearly 200 illustrations. New York: William Wood & Co.

LACTOPEPTINE.—This preparation which has the merit of being considerably cheaper than the best kinds of Pepsin, has been found by actual experiment to possess a decided and uniform solvent power, greater, weight by weight, than Pepsin is usually prescribed. It is a combination of Pepsin, Sugar of Milk, Pancreatine, Ptyalin, and Lactic and Hydrochloric Acids. We have administered Lactopeptine in a number of cases where Pepsin was indicated, and have been fully satisfied with the result.—*New York Medical Journal*, Feb. 1878.

MUSKOKA AS A HEALTH RESORT.—The Editor of the *Forester*, Huntsville, in reference to our article on the climate of Manitoba, in the October number, claims a similar immunity from lung diseases in Muskoka. He says "that for healthfulness it cannot be surpassed by any country. After a four years' residence in Muskoka, and having a personal acquaintance with every neighborhood in a circle having 150 miles for a circumference, we have never observed but two cases of phthisis, and they were not indigenous to Muskoka. Nor are malarial diseases, as ague, &c., of frequent occurrence. It is a commonly received theory, that tubercles first deposit themselves in those air cells of the lungs that are least distended. Now, an inhabitant of Muskoka must of necessity distend his lungs more than a resident of southern Ontario, on account of the rarity of our atmosphere from the greater elevation above the sea level. To this fact we attribute our immunity from consumption. Our numberless streams of non-alkaline water, may account for the rarity of malarial diseases.

While pecuniary matters would prevent many Ontario invalids from visiting Spain, the Canary Islands, Florida, Colorado, California or Manitoba, there are few who could not take advantage of the invigorating climate of Muskoka.

STRANGULATED HERNIA REDUCED BY ESMARCH'S BANDAGE.—M. Chapelle, of Paris, reports two cases of strangulated hernia that were reduced by means of Esmarch's bandage, after all other means of reduction had failed. The first case was one of scrotal hernia in a patient 72 years of age, and the other was a femoral hernia in a woman.—*L'Année Médicale*.

Births, Marriages, Deaths.

On the 29th Oct., J. E. Eakins, M.D., L.R.C.S. & L.R.C.P., Edin., to Nettie, eldest daughter of Sidney Warner, Esq., Wilton.

In Toronto, Oct 31, Irwin Bridgman, M.D., in the 34th year of his age.

In Hamilton, on the 2nd ult., of heart disease, C. F. Bullen, M.D., in the 42nd year of his age.

In Montreal, on the 2nd ult., A. Malhiot, M.D., formerly of St. Hyacinthe, Que.

On the 29th Oct., Dr. Waddell, of Truro, N.S., formerly Medical Superintendent of the Asylum for Insane, St. John, N.B.

On the 17th ult., Dr. H. R. Haney, M.P.P., of Fenwick, aged 43 years.

* * * The charge for notice of Births, Marriages, and Deaths, is fifty cents, which should be forwarded in postage stamps with the communication.

THE CANADA LANCET,

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Original Communications.

THE THEORY OF GERMS, AND ITS APPLICATION TO MEDICINE AND SURGERY, BY PASTEUR, JOUBERT, AND CHAMBERLAND.

(Continued from page 113.)

BY JOSEPH WORKMAN, M.D., TORONTO.

I have many times stated before this Academy that there exist microscopic ferment creatures, possessing various physiological properties, from the *mycoderma aceti*, essentially an air-living organism, to the ferment of beer, which is at once an air and an airless living one, and I have often insisted upon this circumstance, that life which is manifested for even a very short time without any participation whatever of free oxygen, carries with it the phenomena of fermentation.

We have seen in the vibrio of septicæmia a *microbio* exclusively *anærobious*, (living without air), which therefore could not be developed unless *in vacuo*, or in the presence of inert gases. It must therefore be a ferment. This is the fact. Whilst the multiplication of the vibrio by scissure continues, its life is accompanied by an evolution of hydrogen, a little nitrogen, and minute quantities of putrid gases. These gases do not cease to be produced until the moment in which transformation of the vibrio into corpusculous germs is about to take place. This evolution of gases during the life of the vibrio explains the very rapid tympanites of animals dead from septicæmia, and the emphysematous state of the connective tissue, particularly in certain parts of the body, as the groins, and axillæ, where the inflammation is sometimes excessive. I ought to add that all vibriones are not *anærobious*; that one of the most common, frequently found on the surface of infusions of vegetable organic matters exposed to contact of air, a vibrio very flexuous and very rapid in its movements, is exclusively *aërobious*

(living in air), absorbing oxygen and exhaling carbonic acid almost in equal volume, exhibiting thus the physiology of the *bacteria carbunculosa*. Want of time prevents me doing more than allude, in passing, to this vibrio, which should give occasion for observations of much interest. This vibrio is inoffensive—being introduced beneath the skin, it produces merely local disorders of little importance. Comparing this innocuousness to the virulence of the septic vibrio, one might believe that the mode of life so different in these two vibriones, the one living *in* air, the other *out* of it—may explain the oppositeness of their action on the economy. The effects, however of the *bacteria carbunculosa*, do not permit us to remain in this belief. If this *aërobious* vibrio is inoffensive, it is because it cannot live in the temperature of the bodies of animals. At 38° C. (100.4° F.) its movements and its multiplication are suspended, and if then inoculated, it disappears under the skin, as though digested, if we may so speak. Scientific novelties often clash with our preconceived ideas. What is all this rumpus, exclaim certain persons, about your bacteria, and your vibriones? Do we not see these infinitesimals budding in all parts? Are they not seen to abound in the dressings of the convalescent, and to abound even in the wounds in progress of cure? Has the least danger therefore resulted? I answer,—What infinitely small things are you talking about? We have demonstrated that by the side of these very dangerous vibriones, there exist others very harmless, and certainly these last are far from being the only microbes devoid of all virulence. Having been led by the verification of the cause of the innocuousness of the *vibrio aërobious*, of which I have spoken, to institute numerous experiments as to the limits of resistance of microscopic beings in diverse temperatures, and having known that the *bacteria carbunculosa* is not developed, or only with much difficulty, in a temperature of 44° C. (111.2° F.), in certain liquids of culture, we thought this was an explanation of a well known, though very mysterious fact.—to wit: that certain animals are refractory to the carbunculous poison. It was impossible for us during the last year to produce carbuncle in hens. The temperature of about 42° C. (107.6° F.) in the gallinacæ, united to their vital resistance, opposed the development of the *bacteria carbunculosa* in the bodies of these animals.

If this conjecture were well founded, we should be readily able to transmit the carbuncle to hens by lowering their temperature. The success of this experiment was immediate. Inoculate a hen with the legs immersed in water at 25° C. (77° F.), which suffices to bring the temperature of the body down to 38° C. (100.2° F.), which is the temperature of animals susceptible of contracting carbuncle, and in 24 or 30 hours the hen dies with all the body invaded by *bacteria carbunculosa*. Certain inverse experiments have given us favourable results,—that is to say—by elevating the temperature of animals which contract carbuncle, we have been able to preserve them from this terrible, and at present incurable evil.

To augment or limit the enormous potency of these infinitely small things, and to dispel the mystery of their action by a simple change of temperature, is one of those facts most fitted to demonstrate what may be hoped for from the aid of science, even in the study of diseased conditions most obscure.

Let us now return to our septic vibrio, and compare it, under the relation of the formation of its germs, to the *bacteria carbunculosa*, in order the better to be convinced that microscopic organisms enjoy varied physiological properties, and that we should expect from their part, very diverse morbid manifestations. Careful experiments have taught us that the septic vibrio not only can live and multiply in a vacuum the most perfect, as in the most pure carbonic acid, but that also it here produces its germs, and that free oxygen is not necessary, in any form whatever, for their function. But the *bacteria carbunculosa*, on the contrary, becomes, in a vacuum, or in pure carbonic acid, absolutely unfitted not only to live, but even to be transformed into corpusculous germs.

This last investigation is, however, one of the most delicate. If the smallest quantity of air remains in the tubes in which establishment of a vacuum is sought for, and in which the *bacteria carbunculosa* is cultured, corpusculous germs, appear, and to such a degree that the most perfect air pumps often fail to prevent the phenomenon. It was necessary to combine the operation of the pump with that of liquids capable of absorbing the slightest traces of oxygen, before we could be convinced that this bacteria is essentially, in every period of its existence, aërobious.

What a difference there is then between the vibrio septica, and v. carbunculosa! and is it not wonderful to see beings so dissimilar in their modes of nutrition multiplying in the animal organism?

Another question not less interesting, is to know if the corpusculous germs of the *vibrio septica*, after formation in *vacuo*, or in pure carbonic acid gas, are not liable to become developed from small quantities of oxygen. Physiology knows to-day no germination possible without contact of air,—yet experience proves that the germs of the septic vibrio are absolutely sterile in contact with oxygen, whatever may be the proportion of this gas; but with this condition, that there is a certain relation between the volume of air and the number of the germs; for the first germinations, stealing the air which was in solution, may become a protection to the remaining germs, and it is thus that in strictness the septic vibrio can be propagated, even in presence of very small quantities of air, whilst this propagation does not take place under a free supply of air.

A curious therapeutic observation is here suggested. Let us suppose a wound exposed to the air, and in a putrid state which might cause the patient septicæmia, and without other complication than might result from development of the septic vibrio.

Now then, theoretically at least, the best means to which recourse could be had, to impede death, would consist in incessantly washing the wound with water showered over it, or in directing over it a free current of air. The adult vibriones, on the point of scission would die in contact with air; or would become sterile. Yet more; there may be cast over the surface of the wound, air surcharged with the germs of the septic vibrio, or we may wash the wound with the water holding in suspension millions of these germs, without provoking the least septicæmia. But then, in such conditions let one single blood clot, one single fragment of dead flesh be lodged in a corner of the wound, then by the aid of the oxygen of the air, be it ever so small in extent, these septic germs, in less than twenty-four hours, give place to an infinity of vibriones, which reproduce by scission and in a short time are capable of producing septicæmia. The numerous cultures which we made of the septic vibrio, have enabled us to verify some curious facts of the natural history of microscopic organisms.

One of the liquids used by us for the culture of the septic vibrio, was the extract which is called in commerce the *caldo Liebig*, which, after dilution in ten parts by weight of water, and having been neutralized, or rendered slightly alkaline, was raised during a quarter of an hour to a temperature of 113°C (235.4°F .) so as to turn it absolutely imputrescible under contact with pure air. We have said that the septic vibrio is formed of minute threads which move. This is particularly the aspect under which they are met with in the abdominal serosity, or in the muscles of animals dead from septicæmia; but it is often associated in the muscles, especially of the abdomen, with small corpuscles generally immoveable, having a lenticular form. These lenticles, which have sometimes a corpusculous germ in one of their extremities, were for a long time, a source of embarrassment, and a mystery to us; our experiments in culture have taught us, however, that they are no other than one of the forms of the septic vibrio.

Sometimes the lenticle is terminated on one side by an elongated appendix, having thus the form of a bell-tongue. We have likewise seen the septic vibrio under the form of minute twigs, extremely short and gross, or very much attenuated; but that which is most surprising is the facility with which the septic vibrio can be reproduced without manifesting the least movement, a facility combined with a great diminution of virulence, though this does not altogether disappear.

For a considerable time we thought we had two, or several forms of vibriones, of divers forms of virulence, and that by our cultures we obtained separations more or less complete between these diverse vibriones. It is not so. We have not met, in septicæmia properly so called, any but one vibrio, in which our means of culture caused change of aspect, or facility of propagation, and virulence.

The best proof that, in our culture, indefinitely repeated, we have had, that it is a specific vibrio is that those cultures may be raised in their commencing virulence by changing their liquid. Let there be reproduced ten, twenty, thirty times, consecutively, the septic vibrio in the *caldo Liebig*, and then let there be substituted for the *caldo*, sanguineous serum slightly charged with fibrinous coagula, the new culture will furnish a very virulent septic vibrio, killing, for example, with $\frac{1}{2000}$ of a drop

and the blood and serosity of the animal dead, will immediately acquire a virulence yet infinitely greater, with the habitual forms and movements of the septic vibrio.

We have shown by the preceding facts, how premature, in the actual present state of our knowledge, are the classifications and nomenclatures proposed for beings which, in their aspect and properties, through external conditions, can change to such an extent as we have instanced.

In the study of microscopic beings, every method which can be availed of for separation of the numerous species, whose association is so frequent, is indispensable. The peculiarities of those ferments which live without air, placed us on the track of these methods. I will allude to culture *in vacuo*, opposed to that in presence of atmospheric air. If the germs of an aërobious organism are met with, mixed with those of an anërobious one, they can only be separated by culture *in vacuo*. The same will happen equally in a mixture of germs of a species which is at once aërobious and anërobious. Applying this method, and associating with it others known; sometimes, too, taking advantage of a happy accident, as we always do in a long course of investigation, we have found that the atmosphere and the water, those grand reservoirs whence converge the microscopic destructions of all that has life, contained very numerous species, both of the aërobious and the anërobious. Without entering into premonitions of our observations, we may say, in a general way, that the inoculation of these organisms often induces fatal disorders, which appear even to constitute affections, as novel in the specific character of their action, as in the nature of the organisms inoculated in them. The septicæmia, for example, with which we have already been occupied, is not unique. The air and the water contain germs of a vibrio a little less in diameter than that of the septic vibrio,—more rigid, less flexuous, and slower in its movements. In another communication we shall describe its effects.

The following experiments make known another method of separation of microscopic germs which at some points enter into the subject already treated of. Take a quantity of flesh meat, of any weight whatever; let it be a large quarter of mutton; then after having passed it rapidly over fire, in all parts of its surface, pass through the thickness of its tis-

sues the blade of a bistoury, passed in like manner through a blaze; let fall into the cut thus made a few drops of common water, or introduce a small rag of cotton which has been exposed to the current of the air of the street; afterwards cover the quarter of mutton with a bell-glass. Make the same experiment on a similar mass of flesh passed over fire, and some drops of water perfectly deprived of living germs, which is done by raising the water to 120° C. (248° F.) If we consider that muscular flesh readily absorbs oxygen, and evolves an almost equal volume of carbonic acid, we shall readily comprehend that these drops of water are found as if inseminated by aid of the atmospheric air in presence of a culture favourable for the development of certain germs; besides it is easy to fill the bell-glasses which cover the flesh with pure carbonic acid. Observe now, what occurs in a day, or two at most, in a temperature of 30° to 40° C. (86° to 104° F.). The quarter of mutton with the pure water shows no microscopic organisms in any part; whilst, on the contrary, that with the common water, although it may not have received more than a drop of the water of the Seine, or some other dirty water, containing in every part of its mass, and even over its entire surface, anærobious vibriones, more or less rapid in their movements and their propagation.

The experiment is still more notable when there has been deposited in a central point of a piece of flesh a drop of the culture of a vibrio in a state of purity, i.e., without intermixture of other species. The septic vibrio, among others, penetrates, and multiplies with such facility; that every microscopic bit of the muscle presents them in myriads, and their corpusculous germs also. The flesh, in these conditions, is totally gangrened, green on its surface, tumefied with gas, easily sundered, and forming a sanious fetid pulp. What a convincing demonstration, though indirect, of vital resistance, or to use an expression more vague, and at the same time more clear, of the influence of life in combating the consequences, so often disastrous of wounds in surgery. By the water or the sponge with which we wash, or the lint with which we cover a wound, we may deposit in it germs which as you have well seen, are gifted with extreme facility of propagation in the tissues, and we might infallibly bring death to our patients, in a short time, did not the life in their members oppose the

multiplications of the germs. But alas! how often is this vital assistance impotent? how often do the constitution of the wounded, his moral state, the evil conditions of the curative process, oppose but an insufficient barrier to the invasion of the infinitely little beings, with which unwittingly you cover the injured part! If I had the honour of being a surgeon, conscious as I am of the dangers to which the germs of microbios sown broadcast on all objects, but particularly in our hospitals, expose the patients, not only would I use no instruments not perfectly clean, but even after having cleansed my hands with the greatest care, and having rapidly submitted them to a brisk heat, which would expose one to no more inconvenience than is experienced in passing from hand to hand a piece of burning charcoal, I would employ only lints, ligatures, or sponges, previously exposed to an atmosphere of 120° C. (252° F.). In this manner we should have no fear unless as to the germs in suspension about the bed of the patient; but observation has shown us daily that the number of these is, so to speak, insignificant, compared to those scattered in the dust covering the surface of objects, or in the cleanest common water. And, besides, nothing is opposed to the undertaking of the antiseptic process of treatment; but with the precautions which I indicate it may be very much simplified. Phenic acid, not concentrated, and consequently without inconvenience from causticity to the hands of the operator, or to his respiration, may be advantageously substituted for the concentrated.

The importance of the subject is sufficient to warrant a few remarks respecting the risks of death in consequence of the most simple wounds. I shall now allude to a vibrio which has not yet been noticed, whose properties cast new light upon the great "rock" of surgery—'purulent infection. When we take for seed, from a culture *in vacuo*, some drops of common water, it may happen that we obtain a single organism, because common water frequently contains certain germs in unity, when taken in very small volume. This is even a means of separation of germs. If the cultures thus made with diverse common waters be multiplied, the vibrio of which I desire to speak is frequently met with, whose principal characters are these. It is a being at once ærobious and anærobious. In other terms, cultivated in contact with air it absorbs oxygen and gives out an equal volume of carbonic

acid gas, without formation of hydrogen gas. In these conditions there is no ferment ; on the contrary, cultivated *in vacuo*, or in presence of pure carbonic acid gas, it multiplies, but not without, this time, giving a true fermentation, with evolution of carbonic acid and hydrogen gases, as its life is accomplished without air. This is a new confirmation of our principle, that *fermentation accompanies life without air*—a principle which I am persuaded will one day dominate our conceptions of the *physiology of the cell*.

In the first hours of the development of our vibrio, the rapidity of which, principally in contact with air, is considerable, is under the form of small rolls, very short, gyrating, making pirouettes, advancing, swelling out, and in a soft, gelatinous, flexuous state, which is very marked, notwithstanding the small size of the individuals. In a short time all movement stops, and then it resembles absolutely the *bacterium termo*, slightly constricted as this is, in its thickness, yet specifically very different from the *bacterium*.

Inoculate, with a few drops of this culture, a guinea-pig, or a rabbit, and pus commences to form, and to become visible in a few hours. In the succeeding day an abscess is formed, which contains an abundance of pus. This, it will be said, is nothing surprising, because it is known that any solid object whatever, as particles of carbon, a bit of wool which a bullet drives before it, will cause pus to form. I will add that these last experiments have been realized by us with matters previously water-killed, and not containing microscopic germs. But the activity of our microbio, considered as a generator of pus, even though this property may be due only to the quality of a solid body, will be sensibly augmented by the fact of its possible multiplication in the bodies of animals.

The following experiment may serve for confirmation of this fact ; let a culture of this organism be divided into two equal portions ; one to be water-killed, at a temperature of 110° C. (230° F.) which kills the microbio without in anyway altering its form or volume ; then inoculate separately, on two similar animals, equal portions of the water-killed and the non-water-killed half. It is then easily verified that the latter gives more pus than the former, which, in the mean time, furnishes it as any inert solid body would do. Let us add that if the pus formed in each of the two living

animals, be sown separately, we shall see that what has been tried on the animal which received the water-killed organisms is absolutely sterile, whilst the pus of the animal which received the organisms of the non-water-killed, readily produces, in abundance, the same organisms.

(To be continued.)

FATTY EMBOLISMS IN FRACTURES.

(Translated from *Le Progrès Medical*.)

BY C. W. COVERNTON, M.D., M.R.C.S. ENG.,
TORONTO.

In 1862 Zenker, while making a post-mortem examination of a man crushed between two wag-gons, found the capillaries of the lungs full of fat. He believed that this fat proceeded either from the contents of the stomach, or from the liver which was steatomatous, as both these organs had been affected by the traumatism. Zenker considered the circumstance very interesting from an anatomical point of view, but he did not recognize the relation which existed between fatty embolisms and traumatisms, neither did he accord great practical importance to the case he had the opportunity of noticing. The same year Wagner published several cases of fatty embolisms, but he regarded them as proceeding from a metamorphoses of pus, as one of the causes of pyemia. It was only in 1865 that Wagner and Busch arrived about the same time, at an exact and completely similar description of the nature and causes of fatty embolisms in osseous alterations. From that time, the doctrine of fatty embolisms was placed on an unassailable foundation, and anatomical, pathological and chemical researches rapidly followed. It was established that in every fracture there was fatty embolism having its origin in the medulla of the bones ; that this embolism was more or less considerable, and that it was very rarely localized in the lungs ; but that it might be found in all the tissues of the organism. Finally, it was shown that in a certain number of cases it could be diagnosed during life, and that it was necessary to regard it as a frequent cause of death and as explanatory of the mechanism of the fatal termination in a large number of cases of death more or less sudden after great traumatic lesions, and previously attributed in a comprehensive manner to that which in surgi-

cal practice was recognised as shock. In this matter it will suffice to allude to the researches of Bergman, Bzerny, Halin, and Fournoy. From the investigations of these writers, fatty embolisms localized in the lungs, or generalized are much more common than is generally supposed, and is produced not only in all fractures, simple or complicated, but further that it may be noticed, although less prominently, outside traumatism in every case where the bones are changed in structure by one cause or another. The number of cases of fatty embolisms observed under the circumstances that we have cited is considerable; it reaches the figure of 140, all, or nearly all have been observed in Germany, except two coming from the Ancient Faculty of Strasburg. Having had opportunity very recently of observing two well marked cases of pulmonary fatty embolism consecutive on osseous changes, we considered it right to publish them, so as to draw attention to a subject little known among us, still less studied, the importance of which nevertheless will not escape the mind of any one, if regard is had to the statistics mentioned above, a subject doubly important in our judgment, not only because it widens the compass of our anatomical and pathological knowledge, but especially because it makes known a nearly fatal complication of serious injuries, and that consequently it appears to us to have in it considerable clinical importance from the point of view of prognosis. On the 28th of October last a young man was brought to the Hotel Dieu, under the service of Dr. Cusco, sixteen years of age, who had his right leg crushed by a tramway. The patient died within an hour of the accident, having lost a certain quantity of blood. His mind continued clear to the last. M. Bruchet house surgeon, made the autopsy, and established the breaking of both bones, at the middle third of the leg with the fissure of the tibia running to the articular plate. He kindly sent me the lungs and heart, the *venæ cavæ* having been previously ligated, in order to examine the blood of the right ventricle. The microscopical examination made at the laboratory by Professor Vulpian revealed to us the following particulars. The blood of the right ventricle, obtained by means of a puncture made through the wall, previously washed with ether, contained a great quantity of fat mingling in little drops, and recognizable by its micro-chemi-

cal characters, disappearing after the action of ether, and assuming a black coloration under the influence of osmic acid. The vessels of the lung were gorged and literally injected with fat; sections even of the parenchyma made with scissors and examined under the microscope displayed in the interior of the vessels of the lungs—arterial and venous capillaries—elongated masses of from four to five millimetres in length, marked with a special refraction, disappearing under the influence of ether, and presenting, after the action of osmic acid, a deep black discoloration. These floating fat globules, were so abundant at certain points that they outlined, not only the perilobular vascular network, but also the areolar capillary network. Examinations, made at all parts of both lungs gave the same results. The preparations were shown at the Anatomical Society at the sitting of the 8th of November. The second case, not less conclusive than the first, comes from the service of Dr. Brouardel, of St. Antoine. The lungs which we examined, with the assistance of Mr. Mayor, were sent to us by our colleague, M. Marchand, interne of our service. They came from a man who died thirty-six hours after fracture and depression of the right parietal, and as in the foregoing case the pulmonary vessels contained fat, but in small quantities. In both cases, no other viscera than the lungs were examined for fatty embolisms. These two cases which we have reported here, are examples absolutely demonstrative of fatty embolisms after traumatism of the bones. We do not desire in this article, to enquire into the part that this fatty embolism has played in these two cases as a cause of death. In the first, we cannot perceive any other cause that could be assumed. It is, however, a subject that we purpose studying more completely in the future, as cases of fatty embolism are, in truth, very far from rare, and we are persuaded that they will be discovered from day to day to become more frequent, when they are sought for in cases of patients who have succumbed to traumatism. These two cases that we have now reported, are in every particular counterparts of those which have been published in Germany in recent years, and are confirmatory of facts announced by different authors who have devoted their attention to this question; but as we have before said, we have thought it right to publish them in order to draw attention to a subject worthy of study from every

point of view, for although the doctrine of fatty embolism has been announced in the course of lectures of Professors Vulpian and Charcot it did not appear to us up to the present time, to have attracted sufficiently the attention of the medical world.

PARACENTESIS THORACIS IN SUPPURATIVE PLEURITIS — 'NITROUS-OXIDE GAS AS AN ANÆSTHETIC.'

BY WELLINGTON N. CAMPBELL, M.D., NEW YORK.

Late House Physician and Surgeon of the 99th St. Hospital
Late Assistant-Sanitary Inspector to the Board of
Health, and Attending Physician to the
New York and Northern Dispensaries.

The patient states that while exposed to the vicissitudes of the weather during the summer of 1868, he was attacked with acute pleuritis on the left side, for which he was treated in the usual manner. The acute symptoms subsided in a short time; but he realized that he did not breathe as perfectly as before the attack, owing to existing trouble on that side, and he was annoyed by a persistent hacking cough. During the fall of 1869 he had several attacks of hemoptysis, but still continued at his occupation which was that of a private detective. During the fall of 1871 he had another attack of hemoptysis, a little more severe than the preceding one, which alarmed him very much; but which caused him no particular inconvenience. In the summer of 1872, he perceived by digital examination that his heart was displaced to the right, and he was still annoyed by a dry, short, hacking cough, with mucous expectoration, for which he consulted a physician, who gave him a cough mixture and cod-liver oil, alternated with mineral tonics, which he continued to take. I visited him for the first time on the 15th of Nov. 1876, and found him very much emaciated, and suffering from a persistent cough, accompanied with a thin, glairy mucous expectoration, recurrent chills, hectic paroxysms, marked febrile movements, and profuse nocturnal perspirations, and in fact he bore an exact counterpart, in appearance, to one suffering from the last stage of consumption. On examination I found the apex beat of the heart under the right nipple, diminished in intensity and increased in frequency. Pulse at the wrist 120 per minute, small and compressible; temperature in

the axilla, 102° F. with the left pleural sac completely filled, with what I supposed to be pus, owing to the marked bulging of the intercostal spaces. The following day I met Dr. Austin Flint in consultation, and he confirmed the above diagnosis. I operated on the 29th of Nov. using compressed nitrous-oxide gas as an anæsthetic, administered by my dental friend M. S. Beebe. The incision was made with a scalpel in the eighth intercostal space, a little posterior to the axillary line, drawing off about one quart of thick laudable pus, when the patient becoming exceedingly weak, and feeling a sense of suffocation, I was forced to desist. I closed the wound with adhesive plaster, and gave stimulants. On the following day (Nov. 30) I drew off the remainder, which consisted of one pint. There was little, if any odor from the pus. I continued to sustain him by a fluid nutritive diet, tonics, and stimulants. He continued to have an occasional chill and nocturnal perspirations, but they gradually subsided by removing the pus twice daily and cleansing the cavity by injections (through a flexible catheter) of a weak solution of permanganate of potash, which also served as an excellent deodorizer, and prevented excoriation of the wound by acrid secretions. He had constitutional syphilis, and there remained as a sequence chronic nasal catarrh. The syphilitic cachexia probably acted as a predisposing cause, by which the acute was transformed into the suppurative form of pleuritis. He improved gradually and commenced taking exercise about his room on the 15th of Dec., and went out on the street for the first time on the 24th, after which he took out door exercise daily, and eventually went on duty. The heart had returned to that extent that the apex beat was felt in the ensiform triangle. The cardiac pulsations were less intense, but more frequent than normal, owing to pericardial adhesions, and its unfavorable position. The vesicular murmur and resonance were about normal over the whole of the posterior, but were heard with diminished intensity over the upper anterior portion of the lung. Still he complained of but little difficulty in breathing, except upon taking undue exercise. The latter part of Feb., 1877, he went to Washington, on official duty (contrary to advice) feeling tolerably comfortable. The discharge at this date amounted to about one ounce daily, consisting mostly of serum. I instructed him to remove the oakum daily (which was

introduced to keep the wound open), and to cleanse the cavity by injections. He removed the oakum, but neglected to replace it, or to wash out his side as directed. He returned after the lapse of two weeks with the wound partially healed and the sac full, with acute pleuritis of the right side, which caused him much difficulty in breathing, owing to the limited capacity of the left lung. He was soon relieved of the acute symptoms, but his means of support being limited, and requiring constant attention, it was deemed advisable for him to go the hospital. He remained there till about the 1st of August, when he was brought home. I was called to see him on the 8th and found him very much emaciated, the opening was small, and his side discharged about ten ounces daily. The left half of the chest measured $11\frac{1}{8}$ inches, and the right half $15\frac{3}{8}$ inches. I operated again (under nitrous oxide gas) making the incision by measurement two inches in length, using a curved director, which I passed in between the lung and chest wall as a safeguard upon which to make the incision. Through this free opening the accumulated pus discharged freely, and the cavity was readily and thoroughly cleansed. Erysipelas developed in and about the wound, but soon subsided under the internal administration of iron, carbonate of ammonia, and the external application of warm fresh buttermilk. He gradually improved in strength, and the latter part of Dec., 1877, was able to walk about his room, when he formed the habit of taking opium to produce sleep, after which time his appetite failed, and he became constipated. His wife informs me that he has subsisted on brandy, milk, and water for the last four weeks, and that his bowels have not moved without injections for the last three weeks. The waste exceeded the assimilative process to that extent as to render recuperative impossible. General emaciation was the result, and he gradually sank and died a mere skeleton, on the 4th of Feb. 1878. Had he deferred his trip abroad and remained under treatment, I have every reason to believe he would have been alive to-day and enjoying tolerably good health. Unfortunately I was unable to obtain a post-mortem, but from physical explorations performed at various times, I am satisfied that the lung was in a fair condition. There was feebleness of the respiratory murmur and diminished vesicular resonance, over the apex in front, but were not devoid of their

distinctive characters. These signs would be consistent with partially compressed lung, and rigidity of the pulmonic pleura, rendered dense by a deposit upon its surface, or if the physical signs here enumerated depended upon a deposit of miliary tubercles, which we might infer from the previous history of hemoptysis, the deposits must have been small and disseminated, for the expectoration was not sufficient, or of such character as to lead me to infer that there was disintegration following miliary tubercle, and there were no signs indicative of a cavity.

There are several useful lessons to be derived from this case, although terminating fatally.

1st. That our physical explorations of the chest should be so thorough, in cases pointing to disease thereof, as to give the patient the advantage of an early diagnosis.

2nd. To operate early, or while the system is in a condition to be recuperated, is absolutely necessary in order to insure the possibility of recovery.

3rd. To make a free incision in order that thorough drainage may take place, as from any other abscess.

4th. Not to allow the wound to close until the discharge ceases, and keep the cavity cleansed and disinfected.

6th. To sustain your patient from the outset by good diet, stimulants and *especially pure, fresh, air*.

Correspondence.

INSANITY.

To the Editor of the CANADA LANCET.

SIR,—In the last number of your issue appears an interesting essay on the above subject prepared by Dr. Clarke, Superintendent of the Asylum for Insane, Toronto, and read at Hamilton last September before The Canada Medical Association. As a medical man I am much in sympathy with the Dr.'s views as contained in his essay, but I take strong exception to a case of attempted homicide cited and described by him, to show the difficulty scientists experience in determining where sanity ends and insanity begins. The case in question is a felony which was committed here a couple of years ago, and is known as *Regina vs. Wright*. The facts attending the commission of the crime are correctly set forth, but your readers unac-

quainted with the details of the crime, trial, conviction, and sentence of the accused would be forced to the conclusion that the unfortunate man was found guilty on testimony of witnesses *lay* and *medical* swearing unitedly to the sanity of the prisoner by which the Crown was enabled to prevail against the contention "not guilty because of insanity." The Dr. describes his two interviews with the prisoner, how he was led to believe the contention of the defence unfounded, and how on a subsequent interview he found the key that opened the door to the chamber of his fantasies. Now I am greatly surprised for two reasons ; first, the statement of Dr. Clarke who says in effect, that to him belongs the credit of having discovered in the first instance the mental ailment of the prisoner; the second is the conduct of the Dr. as a medical expert in calmly acting the part of a disinterested spectator while a legal farce was played, or a judicial outrage committed without a word of protest from him as a medical expert, or a government officer, in which capacity he was there. Now, I happened to take some interest in the defence of this trial, and was present as a witness for the prisoner to testify to his insanity. Judge of my surprise to find the Dr. there on behalf of the Crown, testifying in a plain case of insanity (that is, plain to my mind). I took the liberty of introducing myself to him, informing him at the same time of my purpose to give evidence that the prisoner was insane. I then learned that the Dr.'s views were adverse to the defence. I pointed out to him how he could find indisputable evidence of partially concealed, but very deepseated mental delusion in the accused, and suggested the propriety of again paying a visit to the prisoner. The Dr. acted on my suggestion, the result of which was, he determined not to testify for the Crown. Evidence lay and medical was given showing the insanity of the accused, but in rebuttal the Crown called a preponderance of medical testimony to show the reverse, and from a *lego-medical stand point* the Crown triumphed in its contention against the accused. Now the reader will infer from reading the essay that had the defence "sufficient acumen," and called Dr. Clarke, the case for the defence would have been different. I think the counsel who defended, displayed good common sense in not calling the Dr., as the learned judge who presided subjected all medical testimony to one ordeal, viz.: Did the prisoner know right

from wrong at the time he committed the felony ? It is evident, under such ruling, Dr. Clarke was of no use to the defence, as the prisoner was a stranger to him up to the trial. But why did the Dr. as a humane official not endeavor to remonstrate with the Crown counsel on the cruelty of punishing an insane man ? For the Crown ever jealous of the rights of the public, has no desire to punish any innocent man, that is, innocent in the eye of the law. Had the Dr. done this the expense of bringing him from Toronto would not, as it has been, thrown uselessly away. Apologizing for the length of this communication, and thanking you for the space.

I am, yours, &c.,

G. W. LING, M.D.

Wallacetown, Dec. 1878.

Selected Articles.

DIAGNOSIS OF CASES OF INTESTINAL OBSTRUCTION.

Jonathan Hutchinson, F.R.C.S., in British Medical Journal :

1. When a *child* becomes suddenly the subject of symptoms of bowel obstruction, it is probably either intussusception or peritonitis.

2. When an *elderly person* is the patient, the diagnosis generally rests between impaction of intestinal contents and malignant disease (stricture or tumor.)

3. In *middle age* the causes of obstruction may be various ; but intussusception and malignant disease, both of them common at the extremes, are now very unusual.

4. Intussusception cases may be known by the frequent straining, the passage of blood and mucus, the incompleteness of the constipation, and the discovery of a sausage-like tumor either by examination per anum or through the addominal walls.

5. In intussusception the parietes usually remain lax ; and, there being but little tympanites, it is almost always possible, without much difficulty, to discover the lump (or sausage-like tumor) by manipulation under ether.

9. Malignant stricture may be suspected; when in an old person, continued abdominal uneasiness and repeated attacks of temporary constipation have preceded the illness. It is to be noted also that the constipation is often not complete.

7. If a tumor be present and pressing upon the bowel, it ought to be discoverable by palpation, under ether, through the abdominal walls, or by examination by the anus or vagina, great care being taken not to be misled by scybalous masses.

8. If repeated attacks of dangerous obstruction have occurred, with long intervals of perfect health, it may be suspected that the patient is the subject of a congenital diverticulum, or has bands of adhesion, or that some part of the intestine is pouched and liable to twist.

9. If in the early part of a case the abdomen becomes distended and hard, it is almost certain that there is peritonitis.

10. If the intestines continue to roll about visibly, it is almost certain that there is no peritonitis. This symptom occurs chiefly in emaciated subjects, with obstruction in the colon of long duration.

11. The tendency to vomit will usually be related with three conditions and proportionate to them. These are (1) the nearness of the impediment to the stomach, (2) the tightness of the constriction, and (3) the persistence or otherwise by which food and medicine have been given by the mouth.

12. In cases of obstruction in the colon or rectum sickness is often wholly absent.

13. Violent retching and bile-vomiting are often more troublesome in cases of gallstones or renal calculus simulating obstruction than in true conditions of the latter.

14. Fecal vomiting can occur only when the obstruction is moderately low down. If it happen early in the case, it is a most serious symptom, as implying tightness of constriction.

15. The introduction of the hand into the rectum, as recommended by Simon, of Heidelberg, may often furnish useful information.

TREATMENT.—1. In all early stages, and in all acute cases, abstain entirely from giving either food or medicine by the mouth.

2. Use anæsthetics promptly. Put the patient under the full influence of ether; examine the abdomen and rectum carefully before tympanites has concealed the conditions; administer large enemata in the inverted position of body; and, if advisable, practise abdominal taxis. If you do not succeed at first, do it repeatedly.

3. Copious enemata, aided perhaps by the long tube, are advisable in almost all cases, and in most should be frequently repeated.

4. Fluid injections may be sometimes replaced by insufflation of air in cases of invagination, since air finds its way upward better, and is more easily retained. It is, however, somewhat dangerous, and has perhaps no advantage over injections with the trunk inverted.

5. Insufflation is to be avoided in all cases of suspected stricture, since the air may be forced above the stricture, and there retained.

6. Saline laxatives are admissible in certain cases where impaction of feces is suspected, and in cases of stricture where fluidity of feces is advisable.

7. Opium, or morphia, must be used in proportion to the pain which the patient suffers. It should

be administered by the rectum or hypodermically, and should be combined with belladonna. If there be not much pain or shock, it is better avoided, since it increases constipation and may mask the symptoms.

8. A full dose of opium administered hypodermically will put a patient in a favorable condition for bearing a prolonged examination under ether, and attempts at abdominal taxis.

9. In cases of uncertain diagnosis it is better to trust to the chance of spontaneous cure or relief by repeated abdominal taxis, than to resort to exploratory operation, or in desperate cases iliac enterotomy should be done. Operation for the formation of an artificial anus in the right or left loin may be performed whenever the diagnosis of incurable obstructive disease in the lower bowel is made.

10. The operation for the formation of an artificial anus through the anterior part of the abdominal wall and into the small intestine should be resorted to only in certain cases of insuperable obstruction, in which the seat of disease is believed to be above the cæcum.

11. In all cases in which the precise seat of disease is doubtful, but the large intestine is suspected, the right loin should be preferred. If the colon here be found to be empty, the peritoneum may be cautiously opened, and a coil of distended small intestine brought into the wound.

12. My last suggestion as to the treatment is one which, speaking as I do in a medical section, I feel some delicacy in making. It is, however, I believe, a very important one; and it is this, that cases of mechanical obstruction are really surgical and not medical cases. They require manipulative measures both for diagnosis and for treatment, and they require them early. It is difficult to explain why it has come about that, as a rule, a physician is called in first, and nothing but drug-treatment usually adopted in the early periods; and it is, I am convinced, much to be regretted. The surgeon is but too often asked to see the case only in the last stage, when it is thought that perhaps an operation may be desirable. At this period the abdomen is distended, and an accurate diagnosis impracticable; but, what is worse, the stage at which abdominal taxis is most hopeful has passed. My remarks do not of course apply when the medical attendant possesses the knowledge and exercises the functions of both branches.—*Louisville Med. News.*

ADMINISTRATION OF CHLOROFORM.—T. Hughes, M.D., in London Lancet of November 2nd, says: if I were about to be placed under the influence of chloroform, I would say, "Never mind my pulse, never mind my heart; leave my pupil to itself. Keep your eye on my breathing; and if it becomes embarrassed to a grave extent, take an artery forceps and pull my tongue well out." It was the observance of this simple yet all-important rule that

enabled the late Mr. Syme to say that he never lost a single case from chloroform, although he gave it in five thousand cases. Prof. Lister has done much to enforce this rule of practice, and to him is due the credit of pointing out the *modus operandi* of this proceeding. He was the first, as far as I am aware, who explained that its action is not mechanical, but is exerted chiefly through the nervous system.—*Lou. Med. News.*

SUPRA-PUBIC INCISION INTO THE BLADDER FOR THE RELIEF OF TRAUMATIC STRICTURE OF THE URETHRA.

Alf. B., æt. 22, was admitted into Guy's Hospital on Sept. 18th, 1877. Seventeen months before admission he had sustained a very severe compound fracture of the right side of the pelvis, from a large piece of stone falling upon it. His left ankle-joint was dislocated at the same time, and the urethra ruptured, probably by the fractured ischium, for the wound through the skin was at the junction of the perinæum and the right thigh. He was taken at once to a provincial hospital, where the dislocation was reduced, and the limb put in splints. Catheters were at first passed, but they were not continued; and subsequently it was found impossible to introduce any. His constitutional state, which at first was extremely bad, gradually improved, and at the end of seven months he was discharged from the hospital for change of air. At this time he was passing the bulk of his water, with great straining, from the wound, and from two abscess-sinuses in the groin. A little dripped from the penis. Repeated attempts at catheterism had entirely failed. After two months' stay at home he was re-admitted to the same hospital. The attempts at catheterism were now repeated, both from the penis and the sinuses; and on one occasion a catheter was introduced from the wound into the bladder. A week later a perinæal section was performed with this catheter as a guide, and a No. 9 gum-elastic catheter was introduced into the bladder from the median line of the perinæum. This was continued in for many weeks; but at last, in the many necessary changes it was found impossible to introduce instruments of an equal size, so that by degrees smaller and smaller sizes were used until finally none at all could be introduced. After six months' stay in the hospital he went home in much the same state. Attempts were then made at home, during two months, to pass instruments, and once he took chloroform; but this failing, he was sent to Guy's. During the first few weeks after admission various operative procedures were adopted, with a view of finding the end of the vertical portion of the urethra, or providing the patient with an easy mode of exit for the urine. These

may be summed up thus—1. The sinuses were carefully slit up and explored to see if they could be traced into the urethra. 2. A "Cock's" operation was performed, in order to open a way into the bladder through the portable portion of the urethra. This resulted in showing that the urethra was not in its normal position, probably from the contraction of the dense mass of cicatricial tissue, which occupied the lower aperture of the pelvis. The operation, therefore, failed. 3. Cystotomy was performed from the perinæum through the prostate. This operation gave so much relief to the patient, furnishing him with an easy mode of exit for the urine, that it was determined to try and connect the new prostatic passage with the penile portion of urethra. This was accomplished toward the end of December, and by the beginning of April the new passage in its entire length appeared to be pretty well established. A sharp attack of cystitis, produced by the patient taking exercise with a somewhat stiff gum-elastic catheter in him, here interrupted his convalescence for some time; and after this had disappeared it was found that when he attempted to pass water without the catheter, it would *begin* to flow through the new passage, and then would stop suddenly altogether, just as if a calculus had fallen against and plugged the new aperture. The reason of this appeared to be that the *cul-de-sac* of the old prostatic urethra ran down by the side of, and close to, the new passage; and that when micturition took place the urine entered and filled the old *cul-de-sac*, as a bag; and this, in its distended state, pressed on and obliterated the new passage. Hence, to complete the cure it would be necessary in some way to utilize the old *cul-de-sac* of the prostatic urethra. With this object the following operation was resolved on:—On June 25th the bladder was washed out with thymol solution, and then hyper-distended with some of the same fluid. A supra-pubic incision was then made, and the surface of the bladder exposed. One or two double sutures were then passed into its muscular coat, on either side of the intended puncture. On the puncture being made the thymol solution welled out freely, and was recognised by its smell. A large curved sound was then passed into the viscus through the puncture, down to the back of the bladder, and thence into the prostatic urethra, where it was arrested by the *cul-de-sac*. The sound was then given into the assistant's hands to hold steady and the patient put into the lithotomy position. The point of the sound could then be felt from the rectum, in spite of the dense cicatricial tissues by which it was surrounded, and it was seen to deviate very considerably to the right side, hence, accounting for the failure in finding it by "Cock's operation." Incisions from the perinæum readily reached it, and a director was passed into the bladder on this side. On this director, subsequently, a No. 12 catheter was passed

into the bladder. The large sound was then removed from the hypogastric incision, and the wound in the bladder closed by carrying the sutures across the incision, threading them in by a cleft-palate operation. The external skin wound was left open to granulate up. No constitutional disturbance followed this operation, which was performed under the carbolic spray in all its details, though recognizedly it was only possible to keep the anterior wound *entirely* antiseptic. No escape of urine ever took place from the hypogastric incision. A month after the operation the catheter was passed the whole length of the urethra into the bladder, and the external perinæal wound left to close as far as it would. Early in September the perinæal wound was so far closed that the catheter was left out at intervals, and the patient showed that he could pass urine down the whole length of the urethra in a good stream without any of the previous obstruction. At the present time the patient remains in good health, generally passing the catheter for himself, by preference, about twice in twenty-four hours, to avoid any possible future contraction in the new portion of the perinæal-urethra. It is urged that this supra-public operation, though admitted inferior to "Cock's operation" (for opening the urethra at the apex of the prostate), as far as risk to the patient, facility of performance, and general success in results are concerned, may yet be the greatest value where the "Cock" fails in success,—as, indeed, is shown by this case. Such failure can only be due when properly performed, to some displacement of the urethra from its normal position. In the present case this arose from the contraction of a vast amount of cicatricial tissue produced by a very bad compound fracture of the pelvis, but it may also be due to the pressure of tumours, or to unsymmetrical suppurations about the neck of the bladder, as in some cases of old and repeated extravasations of urine. In the present case, the operation was rendered entirely antiseptic by the washing out and injection of the bladder with thymol solution first, prior to the performance of the operation. It is pointed out that even in cases where the bladder is contracted down behind the pubis, and filled with stinking ammoniacal urine, this may probably be done with success by the use of the aspiratory trocar and canula after the skin incisions have been made, but before the bladder has been incised. In this way, by alternately pumping in and sucking out fluid, the bladder may be thoroughly washed out, and finally hyper-distended with antiseptic fluid, whereby the subsequent steps of the operation are much facilitated. The method of passing the sutures prior to opening the bladder enabled the viscus to be well held up against the external wound in spite of its collapse after opening. And subsequently they enabled the wound in the bladder to be rapidly and completely closed

whereby all risk of subsequent infiltration of urine was avoided.—*The Doctor*, Nov., 1878.

POTT'S DISEASE.

BY LEWIS A. SAYRE, M.D., OF NEW YORK.

Gentlemen, I shall not attempt to give you anything like a full lecture on this subject, but propose to make a few practical remarks and application of the treatment in the cases before us, so that you can understand the main points as well as the details of the treatment, and thus be enabled to do your patients as much good as I or any one else can do.

I shall speak first of Pott's Disease; now Pott's Disease and lateral curvature are both deformities, but one is a deformity only, while the other (Pott's Disease) is a disease.

We find this to be the result of inflammation and absorption of the bodies of the vertebræ. The misfortune is that no deformity is observed until this condition has ensued. Could we find this out in time, as we should do by correctly interpreting the symptoms presented, the disease could be arrested and the patient cured without deformity. I believe the direct or exciting cause of Pott's Disease to be traumatic, and in saying so, I do not desire to be understood as not allowing scrofula and other hereditary forms of transmitted evils to *pre-dispose* to it when there is an *exciting cause*, but I do not believe it occurs except from traumatic origin. And many have done me the injustice to say that I do not credit such evils as impoverished blood caused from scrofula, phthisis, syphilis, etc., as conducive to the disease, because I deny that they produce it independent of some exciting cause. Some injury is necessary to develop the disease, even in the depraved constitution.

It may be a fall across the hearth-rug, a gentle tip, or some slight trouble which would suffice to develop the disease in the feeble constitution, and from constant irritation cause trouble at the distal end of the nerve, and hence Pott's Disease from remote injury.

The majority of cases occur in robust, healthy children, because they do not *guard themselves against injuries* like the weakly, ill-nourished child. The healthy child goes romping and tumbling about, and gets an injury which finally results in Pott's Disease, while the child predisposed to it is careful, and goes along and misses it often times, because its bad health keeps it from exposure to violent exercise and accidents consequent upon such a life.

You will observe the young one afflicted with this disease endeavors to put on a natural splint by keeping the muscles of the body rigid and the back straight, and thus getting the relief which is only to be obtained in this way; in the stoops, it is

with the whole body ; if he jumps, it is to alight upon the toes, and keep the vertebræ from a jar.

The treatment is *rest ! rest ! ! rest ! ! !* to the part affected. Formerly this was obtained by keeping the patient upon the back for a long, long time ; they may occasionally get well by this plan, but oftener they die from a worse condition of the general health, which often follows this rigid confinement. Rest, to be successful, even in the horizontal position, must be combined with extension.

The pressure from reflex muscular contraction will cause absorption, if allowed, and will leave the patient deformed. Now extension, and the plaster jacket, gives the diseased part rest, by removing the pressure ; it gives extension and support, and allows the patient to walk around with comfort, thus receiving the advantage of healthful exercise while undergoing the necessary treatment.

To apply the plaster jacket, you must have first a good-fitting shirt, such as I show you here ; it should be fastened with tapes under the perineum, so as to keep it from wrinkling ; a pad of cotton, "the dinner pad," should be put over the abdomen, under the shirt. Now, under the apparatus, *suspend the patient with great care ;—never hurt a patient.*

The point of extension is "when they feel right." This lifts the diseased vertebræ off of one another, and straightens the spine.

The patient is now ready for the plaster bandage. Theroller is made of crinoline, or crossbarred muslin ; rub the plaster of paris into it, and roll up lightly. Now drop the rollers into the water, deeply enough to cover them over *endwise* ; this drives out all gas. Now bind the roller, commencing just above the hips, so that the pelvis supports the body ; apply smoothly and evenly some two or three times, and smoothe the wrinkles out as you proceed with the hand.

You must make the shirt fit like the skin, have equal and uniform pressure, and I defy you to have a slough. Now we take this child down, remove the pad from over the abdomen, this will leave room for a full meal. I take my hand and press the jacket down in the groins, thus making it fit the child everywhere ; lay him flat down on his back until the plaster sets ; I then turn him loose, and he can go on all right.

There is one great advantage in using plaster of paris ; it is porous, and you can breathe through it, so that the child can perspire, the air can reach his skin ; if we were to varnish this child we would kill him.

To find whether a case is fixed or ankylosed, and cannot be straightened by extension, I take this malleable piece of soft metal strip, mould it along the spinal curve, take this curve on paper, put the patient under the extending apparatus ; draw him up ; let him swing long enough to overcome the muscles ; take the curve again, and if it

is the same, the case is irremediable and permanent, and should be let alone ; if there is a new curve, you have a case for treatment.

NOTE.—The results of the cases which were treated by Dr. Sayre before the Medical Society were highly gratifying, and very striking ; for example, a poor, weakly child, unable to get along at all, in a few minutes after Dr. Sayre had given him a *new back*, was running around, greatly to his own delight and his parents' joy.

We have only given Dr. Sayre's remarks on Pott's Disease. We have made no mention of the head rest, or "jury mast," for we refer our readers to Dr. Sayre's book for a description of all apparatus used, as well as his treatment, and all other information connected with this trouble. No physician can afford to be without the work, and whoever once sees the glorious results of the treatment introduced by this great surgeon, will ever regard him as one of the great benefactors of the human race.—*C. A. B. Southern Clinic.*

VARIETIES OF PULMONARY PHTHISIS.

EXTRACTS FROM A LECTURE DELIVERED IN BELLEVUE HOSPITAL MEDICAL COLLEGE,
DEC. 10, 1878.

BY ANDREW CLARK, F.R.C.P., LONDON.

. . . I will give you the definition of the term phthisis. I understand by the term phthisis the assemblage and progression of symptoms which are due to an ulcerative or suppurative destruction of more or less circumscribed non-malignant deposit in the lung. When we examine the lungs of patients dead of phthisis, we may, I think, be justified in classifying the diseased lungs into three distinct groups. I may say, we can do that without great degree of refinement, and we can classify them according to what is apparently the dominant element of destruction in the lung. In one group, obviously, the dominating anatomical element is what is called tubercle. In the second group the dominant destructive agent is some sort of pneumonic exudation. In the third group the dominant element is some kind of fibroid tissue. Wherefore at this stage we are permitted to say there are three varieties of phthisis, speaking after their anatomical elements: one in which the tubercle is the dominating element—tubercular phthisis ; one in which some kind of pneumonic exudation is the dominating element—pneumonic phthisis ; one in which some kind of fibroid tissue is the dominating element—and we call it fibroid phthisis.

Now, we are at once brought face to face with one of the difficulties surrounding this disease which makes it quite difficult for the student to understand. When I say that one of these varieties

may be called tubercular phthisis, I have said, and I now repeat it, that the dominating destructive agent is tubercle. But tubercles when deposited in the lung irritate it, and as there are very different textures in the lung—simple cellular textures and simple fibrous textures—they excite in these textures secondary changes. In tubercular phthisis these changes are of two kinds, which are more or less prominent.

When tubercle is deposited in the lung, and gives rise to irritation, it either affects the cell structure of the lung, producing some sort of pneumonia, or it affects the fibrous connective-tissue element of the lung, producing some sort of fibroid complication. And these secondary complications occur in variable degrees, so that, in some cases of tuberculous lung, there is a very large quantity of fibroid material with but little pneumonic material; while in other cases there is a large quantity of pneumonic material with but little fibroid material. You will see, by and by, that this is an important point with regard to the history of phthisis; for according as the secondary complication is pneumonic or fibroid, so is the clinical history of every case of phthisis. Now that being so with regard to tubercle, we have the same effect with regard to pneumonia. Pneumonia occurs alone, but when the pneumonic exudation is not absorbed when it remains and disintegrates in the lungs, a new source of irritation, so to speak, is established, which begets a secondary irritation, and we may have complicating pneumonic phthisis-fibroid tissue, or we may have even the deposit of tubercle. The same thing may be said of fibroid phthisis, although fibroid phthisis which has fibroid tissue for its destructive agent may occur alone, and does so occur more frequently than the other forms, yet it may some times have a secondary complication either the cheesy or tubercular change.

Now there is a second kind of complication of which I wish to speak before I proceed further. We all understand what is meant by tubercle, but we do not, probably, all understand what is meant by pneumonia. There are at least three anatomical varieties of pneumonia which may be mentioned at this point. There is the common form of croupous pneumonia, which occurs as an acute disease and usually affects the base of the lung, the anatomic element of which is a cell something like the white cell. It runs its course in from seven to nine days, and usually terminates by the melting and absorption of the exudation, and final restoration to health.

But there is a second form, which has received the name of caseous pneumonia, of which we have an example illustrated in this diagram. This caseous pneumonia, as you all know, presents a peculiar appearance to the naked eye. The exudation looks like moist cheese, and the anatomical element is chiefly an epithelial-like cell.

There is a third variety, which is called catarrhal pneumonia, that is, a kind of pneumonia which occurs in connection with bronchitis.

Now the last of these three forms of pneumonia is capable of producing an exudation, which not being absorbed, undergoes retrogressive changes, and brings the case in the pale of our definition of phthisis. But it will not be necessary to allude to this to-day, and I will omit the question of catarrhal pneumonia altogether, not only because it is debatable ground, but because it would be difficult to make it clear. I will content myself with alluding to common croupous and common cheesy pneumonia as conditions in phthisis.

There is one more difficulty: I think that any one, by looking at these diagrams, will admit that their appearances are sufficiently distinct to warrant dividing them into three groups. There is another difficulty still. It is claimed by pathologists in France, and by many in England, and by many in America, that however unlike all these appearances may be, although tubercle, a little yellowish, grayish body, standing out upon the cut surfaces of the lung, may appear very different from cheesy pneumonia, that histologically and structurally they are homologous, and that caseous pneumonia is nothing but infiltrated tubercle. Nay, some pathologists go a little further, and, straining the use of language, will say that in these fibroid lungs the fibroid masses are still homologous with tubercle; that you do not see the tubercles there, but that the tubercles were once there, and as they were formed they were converted into fibrous tissue, and that from the fresh fibrous tissue so formed at any time may be developed distinct tubercle. This is, I say, straining language further than it is warrantable, but it is still held as an argument by able observers in England.

I will not give way to this argument, but I repudiate the histological doctrines that these forms of pathological degeneration in lungs are one, but it will not be necessary to enter into this subject to-day because I think I have a much higher argument in defence of my views in reference to these changes. That argument is this: I think the truest criterion to the difference in pathological products is not to be found in an anatomical structure. It is to be found in the life history, so to speak. This I take to be the most important point with reference to diagnosis, for forms of anatomical expression are but few, consisting chiefly of cells, fibres, and granules; in fact, we can enumerate the destructive elements of disease upon our fingers, while the dynamic states of which they are an expression may be many. Furthermore, there are forms of anatomical expression which clearly recognize different life states. For instance, one which occurs to me:—When we place under the microscope a section of a tubercle and a section of Peyer's gland from a typhoid fever patient, I should like to know who has ever been able to distinguish between the

two. The morphological changes are the same, but there are important clinical differences in the diseases which have given rise to these morbid changes. So, I say, we have for the present a structural argument; but I place the argument for distinction upon a much higher ground, and I repeat that the true criterion of difference between the pathological changes is to be found much more certainly in their life histories than in their final anatomical expressions. Before leaving this question, I will make another observation in regard to structural characters, namely, that the characteristic anatomical element of tubercle is the lymphoid cell; that the distinguishing character of fibroid degeneration is a fibroid mass with fibro-cellular elements in it. Now, the question arises whether such mere pathological curiosities which can be distinctly recognized in the dead-house can find adequate expression in the wards of the hospital. If that were so, I should be content to leave them where they are, but I think these distinctions are not merely pathological curiosities, for if I follow them into the wards there can be recognized much more distinctly than in the dead-house, these three groups of phthisis which have been anatomically characterized. The better to illustrate what I have said, I will sketch the history of a case from each group.

First, I will give a representative case of tubercular phthisis, that form of phthisis in which the dominant anatomical element is tubercle, plus the secondary consequences in some form of pneumonia and some kind of fibroid tissue. We shall suppose the disease occurs in a girl about eighteen years of age. She has large pearly conjunctivæ, flushing cheek, and early symptoms of exhaustion. When the doctor finds her in this condition he makes a physical examination of the chest, and finds nothing which will account for the phenomena and constitutional disturbance. By and by, she begins to have fever in the evening, and as yet no evidence of lung trouble can be found. Perhaps six months after the beginning of this the physician discovers simply a crepitation at the summit of one lung, and he now knows definitely that the case is one of tubercular phthisis. Then begins cough, expectoration, and irregular fever.

The extension of the disease is steady, but the constitutional symptoms take the lead of local signs. The patient goes on, the disease gradually progressing, and probably within four years, at most, the case comes to an end. Now, before leaving that class of cases, let me make an observation—that the slowness or rapidity with which the case progresses, depends upon the secondary complication. I think it is almost an axiom that tubercle *per se* does not kill. If by any means we can keep the patient from having a further increase of tubercles, and what is more frequently possible, from further pneumonic or fibroid complications, the patient may live for many years.

It is according to the character of the secondary complications that the future of a case of pulmonary phthisis is determined. If the secondary complication is fibroid, the progress of the case is slow, and the patient may enjoy comparatively good health for a long time. If, on the other hand, the secondary complication is pneumonic, then there are developed in the lungs little pneumonias which produce fever and wasting, and the case is one which always progresses more or less rapidly.

In tubercular phthisis with secondary fibroid complication, the prognosis may be very good indeed. It is in such cases that some people think by drinking whiskey that a secondary fibroid complication takes place, and the life of the patient is prolonged beyond the average.

The peculiar clinical feature, however, of tubercular phthisis, is that at first there are but few local signs with profound constitutional disturbance.

Now we come to the clinical character of cases of pneumonic phthisis. The two kinds of pneumonia which we have taken into consideration are the ordinary croupous pneumonia and the cheesy pneumonia. Now I will represent croupous pneumonic phthisis by giving a specimen case. It is typical, and will answer for many cases. Here is the lung of a patient who was well known in the London Hospital; his name was MacIntosh; he came into the hospital with all the usual signs of pneumonia. The pneumonia, however, had some features which were exceptional, and which led me to give the prognosis in the case which I did. He had the usual symptoms of pneumonia, with this qualification; dulness over the seat of the disease was more complete than usual. There was diminished tactile vocal fremitus instead of increased. Instead of bronchial breathing there was feeble breathing, and, in short, there were present symptoms almost like those present with pleuritic effusion. There was no tubular breathing. There was diminished vocal resonance; and the dullness was considerable, but as there was no displacement of organs, no projecting of intercostal spaces, and there were profound constitutional symptoms. I had no difficulty in arriving at the conclusion that the case was one of pneumonia. I then predicted that we were certain to have trouble with this case, for I had observed that when there remained diminished tactile fremitus, and such physical signs as have been enumerated, the lungs were unable to fulfill their function, and so it was with MacIntosh. He expressed himself as feeling quite well, but the physical sounds remaining were diminished breath sounds, and diminished vocal resonance. He got quite well and went out of the hospital, but had this solid mass in the right lung. He was not long out, say about two months when he returned. I then watched him for twenty, two months. The course of the case was simply that of ordinary pneumonia, in which the pneumonic exudation was unabsorbed, probably from

local circumstances, for there was no family history of ill-health, and there were no constitutional symptoms. There was probably an increase and a suppurative disintegration of pneumonic exudation; at all events the pneumonic lung broke up. I then predicted another thing, in which I was quite wrong. For, it had been my experience that whenever a pneumonic exudation broke up, that within a month of that time, evidences of what is called tubercle would appear in the other lung. I have not known an exception to this law, and in Peter MacIntosh, when the pneumonic lung began to break up there were evidences of something wrong in the other lung, and I then made the prediction that tubercle was developing there. At the end of twenty-two months he died, and here is an illustration of what we found upon post-mortem examination. There is nothing here, as you see, which can be called tubercle, there is simply lobular pneumonia. Now, that is a rather quick example of what may be called pneumonic phthisis arising from a common inflammation.

The diagnosis of these cases is not very difficult, because we have a slow inflammation followed by trouble at the base of the lung; the trouble there never disappearing, and being followed at last by symptoms of phthisis. And if to this you will add the fact, that the summits of both lungs are early involved, you are probably safe in making the diagnosis of croupous pneumonic phthisis.

Here I am called upon to make another qualification. It is in the early stages of these affections that I believe we can more readily recognize them. In the later stages it is difficult, and the reason for this is plain. In the early stages of these affections the distinctive anatomical characters can be made out from the history of the case, but in the later stages the whole symptoms are due more to the destruction of lung tissue than to the nature of the destroying agent. Hence, it is most important that we should not forget that in the later stages it is next to impossible to recognize these distinctive changes. It is in the early stages alone that we can be sure in making such distinctions, and then I think it can be done.

(To be continued.)

PATIENTS IN THE LONDON HOSPITALS.

In the out-patient's department one can see, in a single afternoon, nearly every form of uterine disease, from the mere erosion of the cervical mucous membrane to severe cases of cancer of the womb; and when you consider that this is one of the smaller hospitals of the city you can easily see the almost unlimited field that exists here for the study of any special class of diseases. I was much interested in Dr. Williams' cases of cancer of the breasts and of the uterus. From what I can learn,

he has made some remarkable cures that have remained permanent some as long as nine years. His treatment is as follows: Add an equal part of bromine to four of alcohol, the mixture being made in small quantities, as it undergoes change by keeping; and it must be made with the greatest caution, as the combination of the alcohol and bromine, when first made, emits a most stifling vapor, which if brought in contact with the eyes, might produce serious results. Of this mixture, from ten to twenty drops are injected by means of a subcutaneous syringe into the centre of the tumor. As a consequence of the injection, the diseased portion undergoes a change and comes away in the form of a discharge—any unhealthy portions that remain being painted over with the solution as may be needed. If any thickening remains, it may be necessary to repeat the injection after the effects of the first have subsided.

Dr. Williams believes that the bromine, in acting as a caustic, has a specific effect upon the cancerous disease, and that, if the case is taken in hand before the constitution becomes involved, or at the beginning of the disease, the prospects are good for a recovery.

I also saw several cases of hip diseases in a branch of the Samaritan Hospital that were doing remarkably well under a treatment that I have never seen adopted in America. The diseased thigh is kept straight and at rest by means of a long, soft-iron splint, covered with leather. The splint is moulded to fit the outlines, and extends from the middle of the leg nearly to the axilla; this splint is kept in place by means of straps and bandages, and under the side of the sound side is placed, fastened to the bottom of the shoe, a light iron foot-rest, about three inches in height, so that, when the child moves about on crutches, the foot of the diseased side is considerably above the ground, and, as a consequence, the weight of the leg acts a counter-extending force whenever the patient is in the upright position.

I have been attending a course of lectures delivered at the Royal College of Surgeons, by Spencer Wells on ovariotomy. The practical deductions that I made from his lessons were: First. That a certain proportion of cases recovered after tapping, therefore give the patient the benefit of the operation of tapping first. Second. That the more extensive the incision in the abdominal wall, the greater the mortality. Third. Count the sponges and forceps before you begin the operation, and see that you have them all before the abdomen is closed. The lecturer illustrated the necessity of this by relating a case where he closed up the abdomen, accidentally leaving a sponge in the cavity, and another case where a pair of forceps was left in the same way. In both cases the foreign bodies were removed and the patients recovered. Fourth. Use the antiseptic spray while operating, and the antiseptic gauze as a dressing to the wound. Fifth. Use the bichloride of methylene as the anæsthetic. He believes it to

be much safer than chloroform, and it is pleasanter and acts more rapidly than ether. In administering it he uses Dr. Jenker's anæsthetic apparatus, by which the quantity is easily regulated, and without any waste of the remedy.

At Spencer Well's invitation I was present at one of his operations for ovariectomy, or rather the removal of an immense fibro-cystic tumor from the posterior portion of the uterus. He operates slowly and carefully, and in this case as in every other, and I have witnessed several since my arrival here, the pedicle is tied with a strong silk ligature and returned to the abdominal wound closed by sutures, no drainage tube being left in.—*Dr. Cushing, Pacific Med. Journal*

RAPID LITHOTRITY.

Dr. E. L. Keyes (New York Pathological Society) exhibited several specimens of calculi, each of them interesting as illustrating some special point.

The first case illustrated the mildness of rapid lithotripsy and its efficiency. The patient, a man of sixty-three, after a varied set of bladder symptoms, was examined by Dr. Van Buren in October, 1877, and a calculus detected. The patient could not remain in New York for operation, but returned to his native city, where a surgeon put him to bed for seven weeks while he was being relieved of his stone by ordinary lithotripsy, and kept him, in all, from his business three months, removing considerable calculous material—phosphatic.

As the bladder symptoms continued, however, and his surgeon failed to find any further fragments to crush, the patient returned to New York in October, 1878.

Upon examination, one large and two small angular fragments were found in the bladder. The urine was highly ammoniacal and full of pus. Kidneys sound.

At a single sitting of rapid lithotripsy, lasting about an hour (Keyes's lithotrite, Bigelow's washing apparatus), about one and one-half drachm of phosphatic stone was removed from the patient's bladder.

No more reaction followed this operation than had habitually attended a sitting by the old method. No anodyne was given excepting *M. v. Magendie's* solution hypodermically at the time of the operation. The ammoniacal odor rapidly disappeared from the urine, there was no chill, no fever. The intervals of urinating lengthened, the first day from one up to two hours, and in a few days reached three and four hours.

On the sixth night the patient slept all night a thing he had not done before for several years. An examination ten days afterwards failed to detect any stone, and the patient left the city for his home.

Nothing could illustrate the advantage of rapid over slow lithotripsy more forcibly than this case.

The second case was that of a man of sixty-eight, who had carried a smooth uric acid stone in his bladder for several years. This was totally removed at one sitting, by rapid lithotripsy, in forty-two minutes. The stone was one and one-half inch in its long, and about three-quarters of an inch in its short diameter. The first crushing lasted twenty minutes, and four minutes' washing yielded 177 grains; the second crushing lasted six minutes, and 4 minutes washing yielded 40 grains; the third crushing lasted four minutes, and two minutes' washing yielded 19 grains of fragments.

Here a stone weighing half an ounce is taken from the bladder in three-quarters of an hour. Recent exploration of the bladder proves the absence of stone. The patient made a good recovery. He had no chill, and but little fever after his operation. The case is a typical one as illustrating the value of rapid lithotripsy.

The third specimen shown by Dr. Keyes was a number of small phosphatic calculi of varied size and a mass of mortar-like material, one side of which was flat and blood-stained.

These specimens were taken from an old gentleman after death, upon whom no operation had been attempted, on account of his general condition during life. The specimens were shown to illustrate the method of formation of phosphatic calculi within a diseased bladder. The mortar-like mass had been torn off from a semi-ulcerated surface within the bladder to which it was firmly adherent. The smaller calculi represented phosphatic accumulations around small nuclei which had become detached from this mass, while the mortar-like (phosphatic) material itself was deposited only (and quite firmly) upon a roughened, eroded surface of the bladder-wall. On no other portion of the mucous membrane was there any deposit.

Dr. Keyes re-affirmed the proposition formulated by Thompson, that phosphates, amorphous or crystalline, are not apt to accumulate into stone in the bladder, excepting upon a nucleus, or upon roughened, ulcerated, excoriated portions of the bladder wall. A smooth mucous membrane is the best guarantee against the formation of phosphatic stone; but, unfortunately, a bladder which is sufficiently inflamed to allow the precipitation of crystalline phosphates very rarely remains long smooth.—*Med. Record*, Nov. 16, '78.

DIABETES MELLITUS CURED BY EXTRACT OF NUX VOMICA.

Two cases are reported by Dr. Eng. Zarzana, in the *Gazzetta Medica di Roma*. The first patient, a woman, had been passing a very large quantity of water for three years; she was very weak, her

sight was affected, and her thirst was great. At the time the treatment was begun, she was passing twelve Roman livra of urine in the twenty-four hours; it was not albuminous, but contained a large quantity of glucose. At first she was given daily three-quarters of a grain of the alcoholic extract of *nux vomica*, dissolved in 3 ozs. of distilled water, and the dose was increased by three-quarters of a grain every three days, until she was taking $4\frac{1}{2}$ grains per diem. Under this treatment the quantity of urine diminished, and it became very acid, flocculent, and coloured by biliary pigment. At the same time the glucose diminished until only traces of it could be discovered. The general symptoms improved, and the patient was restored to her previous good health. The second patient was a large, robust man, seventy-two years of age. During eleven hours he passed two Roman livra and eight ounces of urine, which was rich in urates and albumen. Under the use of the *nux vomica*, the glucose gradually diminished in quantity and finally disappeared entirely.—*The Doctor*.

MONOCYSTIC TUMOR OF THE OVARY IN DOUGLAS' CUL-DE-SAC.

CLINIC BY PROF. THOMAS, NEW YORK.

Our next patient is Mrs. Mary G., a native of the United States, and fifty years old. She has had four children and one miscarriage, and has been a widow for the last fifteen years. Her last pregnancy occurred seventeen years ago. First let us get the history of the case from the patient herself, as far as we are able.

How long have you been complaining, Mrs. G.? "Well, I cannot exactly say how long." For five years? "Yes, for at least seven years; but I have been worse during the last two years." From what have you suffered during that time? "Weak back, pain in the back, and hot flushes running over the bowels and then down along the thighs." From anything else? "A great pressure on the bladder, causing me to pass my water very often."

Any one practising medicine in a superficial manner would be very apt to prescribe for such a case as this in a general way, without thinking it worth while to make any physical examination whatever, and, perhaps, he might not be very greatly to blame for doing so. You have heard the symptoms of which this patient has been complaining for seven or eight years, and which have become greatly aggravated during the last two years. Suppose she had come to your office with this history, and you were not satisfied to treat the case on general principles—perhaps as a neurosis of the part of the system affected—and had insisted on an examination per vaginam. The following is the condition of affairs which you would thus have

discovered. In the first place, the uterus is markedly anteflexed, and so pressing directly against the bladder. At once, you perceive, we have a sufficient explanation of the symptoms in connection with the latter organ, without resorting to the hypothesis of any neurosis. As the menopause occurred five years ago, this malposition of the uterus is important only on account of its effect upon the bladder.

But this is not all that you would have ascertained by your exploration. On passing two fingers up behind the uterus (and I would strongly advise you always to employ two fingers, instead of the index one alone, whenever you wish to reach well up into the pelvic cavity, on account of the great advantage which this method gives for so doing), you would have discovered a perfectly movable mass of considerable size, in Douglas' cul-de-sac. The first thing that suggested itself to me when I found it, was, that it was a fibroid, and I thought that its mobility might be explained by the fact that it, perhaps, had a long pedicle. But on resorting to conjoined manipulation (which could be performed with peculiar facility in this case, both on account of the senile atrophy of the tissues of the abdominal walls and their laxity, from the effect of child-bearing), I found it was altogether too soft for a fibroid.

Further palpation, with one finger pressed up into the rectum, enabled me to determine that it was undoubtedly a slowly growing ovarian cyst, of about the size of a goose egg, which had fallen down into Douglas' cul-de-sac. By its presence there all the symptoms of the case were satisfactorily explained. By its mechanical effect in pressing the body of the uterus forward upon the bladder the irritability of that viscus was unquestionably due, and the other troubles of which the patient complained were all accounted for by the reflex nervous disturbance occasioned by the presence of this mass in such a position.

By thus ascertaining by physical exploration the actual condition of the pelvic viscera we have gained two very important points. First, we have found how utterly useless all general remedies would be in the case, and, secondly, we may be able to save the patient from the serious operation of ovariectomy.

It is impossible to say whether this cyst is going to increase in size or not; for it is, in my experience, a very uncertain matter. These growths not infrequently remain dormant, or, at all events, increase but very slowly, for many years. I now recall the case of a young lady in this city, who, while returning from the theatre one evening, in a stage, suddenly felt a severe pain which seemed to be caused by the jolting of the vehicle. I was sent for late at night, and on making an examination, I discovered a cyst of the size of a large apple, just in the position of this one. For eight and a half

years its growth was exceedingly slow, but it then suddenly began to increase very rapidly, and at the end of six months more I removed a very large monocystic tumor, by ovariectomy.

I have also known of another case in which the mass was in the pelvic cavity, and could be felt through the abdominal walls, rolling about under the hand when palpation was made, but in which there was neither increase nor diminution in size for a period of four years, during which the patient was under observation. The above remarks apply only to this monocystic variety of ovarian growths, and not to the polycystic tumors which are so much more frequently met with.

But suppose this cyst should increase markedly in size. I should then recommend aspiration through the walls of Douglas's cul-de-sac. This would not be done for the purpose of establishing the diagnosis, but in the hope of effecting a cure in this way, as is sometimes the case. Should such a happy result not be obtained, I would perform vaginal ovariectomy, an operation which, to my certain knowledge, has been performed in at least twelve or fourteen cases, and in no instance, so far as I am aware, with a fatal result. The manner of performing it is, briefly, as follows: When the growth has attained the size of a child's head at birth, an incision is made through the posterior wall of the vagina, and the contents of the cyst drawn off with the aspirator. The walls of the sac are then hooked with a tenaculum, and having been drawn down through the wound, its attachments are slowly severed by means of the *écraseur*. But, you must understand that, notwithstanding the immunity from loss of life that has hitherto attended it, this is a capital operation, and is by all means to be avoided if possible.

What, then, is to be our treatment here at present? Very little attention need be paid directly to the cyst, I may remark. Some would apply electricity, the constant current being employed for the purpose. But the question of the utility of this agent in the treatment of ovarian growths is, as yet, in a state of utter chaos. One gentleman, Dr. Semileder, of the city of Mexico, was successful in curing six cases in succession by electrolysis, and hence, encouraged by this remarkable result, he naturally recommended it in all cases. The method was tried here very extensively, and I have myself seen it employed in three instances. The first case was at the Woman's Hospital, and was under the charge of Dr. Semileder himself. He made three applications of the electricity, and by the time they were completed the temperature had gone up to 104 degrees. The operation of ovariectomy then had to be hurried through with, and I think the patient was thereby saved from the peritonitis which seemed so imminent.

In the second case in which I saw electrolysis employed, I had made a little mistake in diag-

nosis, thinking the tumor to be of a fibro-cystic character, while it was in reality an ordinary polycyst of the ovary. In that the application was repeated five or six times, when acute peritonitis supervened, and soon put an end to the patient's life. The third case was that of a female physician, and ten days after the electrolysis I saw her death in the paper, the fatal result being caused here also by acute peritonitis, in consequence of the operation.

In this connection, I merely state facts which have come under my own observation, and draw no deductions; but I think I have said enough to warn you that it is at least best to be cautious in the use of this method of treatment. Some time ago I went to Boston, on the invitation of Dr. Ephraim Cutler, a very faithful worker in this department, and there saw him make use of electrolysis in the case of a colored woman. This was the only instance in which I have seen an ovarian cyst in one of the negro race. The rarity of this affection, however, is compensated for by the remarkably frequency of fibroids among negroes. By this means Dr. Cutler succeeded in reducing the tumor to the size of a coconut, but, unfortunately, after a time it commenced growing again, and having rapidly attained a size greater than it had ever had before, ovariectomy was finally resorted to. I do not know the result of the operation.

Dr. Ward informs me that just a month before his death, Dr. Peaslee performed ovariectomy in the case of a patient in whom electrolysis had been employed by another gentleman, and had given rise to acute peritonitis. She died upon the table.

In this case no medicine of which I have any knowledge will be of the slightest service in getting rid of the cyst or preventing its further growth.—*Med. & Surg. Reporter, Dec. 14, '78.*

POTT'S DISEASE, SAYRE'S JURY-MAST.

This little child has antero-posterior curvature of the vertebral column—about the junction of the dorsal and cervical divisions. The weight of the head here presses upon the suffering, the inflamed bones. It must be supported and the bones relieved before we can hope for any relief. I have often explained to you the difference between this kind of deformity, and a lateral curvature. In these cases you have a positive, a destructive disease of the bodies of the vertebrae—leading on to softening, to suppuration, to death or permanent deformity if not arrested, whilst a lateral curvature is a functional disorder, a defective condition of the spinal muscles, a mere want of equilibrium in the muscles of the two sides of the body. Those of one side may be tonically contracted and over-

come the opposing. Paresis may seize one group, then the antagonistic muscles in their normal state of contraction alone will throw the column out of its proper line. Hence you see how radically the affections differ.

The plaster jacket with which so much can be accomplished in antero-posterior curvature implicating the vertebræ below the middle of the dorsal region is not alone sufficient to afford relief in this case—the curvature is too high, something else must be substituted or added to the appliance. The plaster jacket reaches only to the arm pits, a curvature below this level is more surely relieved by it than by any other method yet tried. For cases above this point Prof. Sayre has suggested what he calls the "Jury Mast apparatus" in addition to the jacket. "It consists of two pieces of malleable iron bent to fit the curve of the back. To the lower portion are attached three or more roughened tin strips long enough to go nearly around the body. From two cross pieces of the upper extremity of the iron pieces springs a central shaft, carried in a curve over the top of the head and capable of being elongated at will. To this is attached at its upper extremity a swivel cross bar with hooks from which depend straps supporting a head and chin collar."

I suspend this patient, as for the application of the plaster jacket, and after the body is well covered with the rollers, over of course this net shirt, the jury mast apparatus is placed in position. It is fitted, you observe, carefully to the back, and then secured by a few more turns of the well dusted and water-soaked plaster bandages. Thus placed in position, I adjust the straps under the chin and around the back of the neck and secure these to the cross bar—the "swivel cross bar."

Now, you see the apparatus in position—it is already solid. Its argument you can well comprehend—the jacket supporting the weakened spine below the diseased point, the jury mast apparatus lifting the head and neck up and relieving the inflamed vertebræ from their weight. I hope to be able to bring this patient before you again that you may watch the treatment and estimate its value.—*Lancet and Clinic*,

LAPARO-ELYTROTOMY, A SUBSTITUTE FOR CÆSARIAN SECTION.

Dr. Hime (Lecturer on Midwifery and Diseases of Women, Sheffield) reports in the *Lancet*, Nov. 9, the first European case of this operation. The patient, a primipara, was suffering from cancer of the recto-vaginal septum, owing to which the vaginal outlet was reduced to about two inches. Fæces were passed by the vagina, and the patient was reduced by vomiting and diarrhoea, and intermittent hæmorrhages. When seen on July 14,

she was in labour at full term, but the pains had ceased for some time, the os being fully dilated, the child's head above the brim, and the child alive. The patient was removed to the Woman's Hospital, and the same evening Dr. Hime operated. Owing to an accident, antiseptic measures could only be partially employed. The patient was chloroformed, and an incision was made through the abdominal wall in the direction of a line drawn from the spina ilium ant. sup. sinist. to the spina pubis. The peritoneum, which was much more ample than in non-pregnant persons, having been reached, it was drawn upwards without being wounded; a blunt probe was passed up the vagina, and by it the upper part of the vaginal wall was pushed into the bottom of the wound, where it was seized by hooked forceps, and then divided. The hand having been passed through the opening thus made, came out at once on the dilated os uteri, which was occupied by the bag of waters and the child's head. Turning was rapidly effected, the child being delivered through the incision in the groin, and the placenta followed spontaneously. No more blood was lost than in an ordinary labour during the operation, which lasted about twenty minutes. The patient, who nearly went off twice owing to the chloroform, was very violent after the operation, and had to be held down in bed. She was rallying when, after a couple of hours, she unexpectedly sat up in bed, but soon grew livid, and sank dying (evidently from cerebral anæmia).

At the autopsy (at which Dr. Hime demonstrated the operation to his class), the peritoneum, uterus, and bladder were found uninjured, and the upper part of the vagina, as well as the uterus free, from cancer. Dr. Hime discussed the merits of laparolytrotomy as compared with craniotomy and Cæsarian section. As compared with the latter, he says: "it avoids almost all the capital dangers of Cæsarian section, and is not more difficult. The wound is much less extensive, the peritoneum and uterus are not wounded at all, nor is the abdominal cavity exposed to danger from infective fluids, cold or mechanical injury; the danger of hæmorrhage is much less, the shock is less, and the delivery of the child is quite as easy. As compared with craniotomy, this operation is simplicity itself, and the results hitherto obtained much better, being absolutely good for the child, and for the mother most salutary results have also ensued." Dr. Hime adds, in conclusion, "considering the easy nature of this operation, the certainty of saving the child, and the strong probability of saving the mother, it is a question how far craniotomy will ever again be justifiable, and whether Cæsarian section should not drop into oblivion." Should the peritoneum be accidentally opened, the wound will be much less than in Cæsarian section, and will be most favourably situated to favour the escape of any blood, &c., from the abdominal

cavity. The child was alive five months after the operation.—*The Doctor*.

BLOOD LETTING.

In the *Lancet* of November 2, is an interesting clinical lecture on this subject by Professor Wharton Jones, who thinks that it is time to consider whether by the prevailing abstinence from venesection of important organs are not often allowed to run a prolonged and disastrous course, which might be prevented by the timely abstraction of blood in such quantity that the loss of it could not be injurious to the patient. Mr. Wharton Jones is not alone in his opinion, which he ably supports by reference to his own specialty. But beyond the domain of ophthalmic surgery, similar favorable results could be obtained, and the last few years have every now and then witnessed competent observers lending their voice to the advocacy of a return to the practice of occasional blood-letting. The indications so familiar to our youth are laid down by Mr. Jones in terms that vividly recall the practice of the last generation; and although it is to be hoped we shall not, by a violent reaction, pass again to the other extreme, it seems time to revise our views, or at any rate to re-examine the results of our predecessor's practice.

The argument might be extended to other active measures. The word antiphlogist is now seldom heard, and the means it included are so little resorted to in numerous cases, that we doubt not much preventible mischief often results. The public too, has become so imbued with the necessity of support and stimulants, that we see the simple antiphlogistic diet and regimen regarded with horror, even by those invalids who have manifestly strong constitutions, and have been over-feeding.

It is thus not uncommon to see cases which have been "kept up" by full diet, including wine or beer, getting worse, or at any rate not improving under the medicines which are trusted to cure them; which on a change to the "lowering" system of our youth, at once put on a new aspect. We are by no means sure that there is not now as much high living and as much need of reducing as ever.—*The Doctor*.

RUBBER BANDAGES IN THE TREATMENT OF ECZEMA AND ULCERS.—Dr. Bulkley, in a paper read before the New Hampshire Medical Society, gives the results of his experience with the solid rubber bandage of Dr. Martin, not only in chronic ulcers of the leg, as first recommended by the latter gentleman, but also in several forms of eczema of the part, detailing twenty-seven cases. The bandage is made of pure rubber, should be ten or twelve feet long and about three inches wide, and provided with firmly attached tapes at the free end.

It should be applied in the morning before the patient leaves the bed, and not too tightly at first, the object being to support the relaxed tissues of the skin and its vessels, not to check the circulation. One or two turns should be taken around the bottom of the foot, and then avoiding the heel the bandage should be wound about the leg without "reversing" up to the knee, where it is to be secured by the tapes. There should be nothing between the rubber and the skin. At bed-time it is to be removed, carefully washed with water until perfectly free from the retained perspiration and discharges from the diseased skin, and left unrolled to dry over night. For the first day or two it may cause some discomfort to the patient, but afterwards is worn without inconvenience. We can vouch that it will be found to be serviceable in many cases of chronic eczema, especially in those accompanied by deep infiltration and in those dependent upon a varicose condition of the blood-vessels. Dr. Bulkley states that he has applied it with benefit even in acute and subacute forms of eczematous inflammation. Of its great service in the majority of cases of chronic ulcer of the leg both Dr. Martin and Dr. Bulkley offer abundant testimony. The bandage should be worn in all cases for some little time after the cure seems complete.—*Boston Med. Journal*.

TRANSFUSION.—At the meeting of the Société Biologie, Dr. Brown-Séquard gave an interesting account of his experiments on transfusion. He had made use of different sorts of liquid for transfusion, such as normal blood, blood without its fibrine, and milk. In such case he found the results to be the same, but in the case of milk the quantity that it was necessary to inject was more considerable than in the others. Ninety-five grammes of blood was drawn from a dog, and were replaced by the same amount of milk. Shortly after the operation (about forty-five minutes) there was no trace of milk globules to be found in the blood, and the dog has continued in excellent health ever since the operation, which took place more than five months ago. M. Malassez found, upon examining the blood after the transfusion, a greater number of white globules than normal. In concluding his remarks, Dr. Brown-Séquard expressed the opinion that the liquid injected should be at least at a temperature of 10° to 12° C. It was preferable, he thought, to choose the arteries rather than the veins, and recommended the operation to be done very slowly, in order to allow the liquid injection to acquire the temperature of the blood. Transfusion also succeeded in animals when the blood made use of comes from a species of animals different from that of the one under experiment. It appears that Dr. Thomas, of New York, has tried the transfusion of milk on the living subject, and is convinced that it acts as well as blood.—*Lancet*.

SUSPECTED EPULIS RESULTING FROM A CONCEALED TOOTH.—A girl fourteen years of age came under observation (Charity Hospital) suffering from a hard tumor of the upper jaw, located beneath the angle of the nose. It had been of slow development and unaccompanied by pain. The skin on the surface was congested, but no hæmorrhage had taken place. It was supposed that the disease was either epulis or exostosis, and a preliminary operation was practised to form a correct diagnosis. After making an incision into the skin, and forming an opening in the hard tumor by means of the bone forceps, a cavity was found having in it an incisor tooth. This was perfectly developed, and loosely connected to the maxilla connective tissue. At this stage of the operation it was obvious that the tumor of the maxilla was due to the concealed tooth. It was noticed also that one of the incisor teeth was wanting below the tumor, and it was readily understood that the tooth, instead of passing down in the usual way, had become involved between the hard palate and anterior surface of the maxilla.

It is difficult to understand the manner in which the tooth had become disconnected from the alveolus, and how it formed a connective tissue attachment with the maxilla.—*New York Med. & Surg. Journal*.

OPERATION FOR PHYMOSIS BY THE ELASTIC LIGATURE.—At a recent meeting of the Societe de Chirurgie in Paris, Dr. Hue, of Rouen, read a paper on a modification, introduced by himself, in the operation for phymosis. Instead of dividing the prepuce with a cutting instrument, he merely passes a needle through its dorsal surface close to the base of the gland, and ties the portion of skin in front of the puncture with an elastic ligature. The ligature cuts its way through in three or four days. The process is not painful, and the patients can, if necessary, continue their usual avocations. Dr. Hue has employed this process with success in eighty cases, which comprised both old men and children. He asserts that the result is very satisfactory from an æsthetic point of view; the gland remains half uncovered and retains its natural decoration unmarred by a scar.—*Le Progres Medical*, No. 19.

VACCINE VIRUS VS. ARSENIC.—Vaccination will not prove successful in a patient who, at the time, is under the influence of arsenic, says an English health officer, Dr. E. J. Syson, quoted by Dr. E. M. Hunt, *Medical Record*, March 9th. "The Antecedent Treatment of those Exposed to Zymotic Diseases." He suggests that other remedial agents, especially those classed as azymotics, will also cause the failure of a properly performed vaccination. This hint opens the door to a wide field of investigation.

DIAGNOSIS OF ANEURISM.—W. S. Oliver, M.D., Surgeon-Major, R. A., gives the following process for the diagnosis of *thoracic aneurism*: "Place the patient in the erect position, direct him to close his mouth and elevate his chin to the fullest extent, then grasp the cricoid cartilage between the finger and thumb, and use gentle upward pressure upon it, when, if dilatation or aneurism exist, the pulsation of the aorta [shall] be distinctly felt, transmitted through the trachea and to the hand. The act of examination [shall] increase laryngeal distress should this accompany the disease.—*New York Medical Record*.

CASE OF PSORIASIS TREATED BY AN OINTMENT OF CHRYSOPHANIC ACID AND BY PHOSPHORUS.—R. Steele reports the case of a workman, fifty-three years of age, who had suffered for eight years from a psoriasis of the elbows, forearms, and right hip, which had defied all treatment. He was ordered $\frac{3}{16}$ of a grain of phosphorus internally three times a day, and inunctions with a salve, consisting of eight parts of chrysophanic acid to thirty parts of lard. The improvement was rapid, and after two months and a half the eruption had entirely disappeared.—*Med. Times and Gazette*.

QUALIFICATIONS OF A MEDICAL EXPERT.—The *Medical Times and Gazette* gives the following qualifications of a good forensic medical expert. He should be a first-class chemist, a sound physician, a skilful surgeon, an accomplished obstetrician; and should join to these qualifications a fair acquaintance with the collateral sciences, a little knowledge of law, much common sense, and a power of readily expressing technical matter in popular phraseology; and, in the present state of our law courts, if he have the gift of incisive repartee, it will be an advantage.—*Mich. Med. News*.

PYROGALLIC ACID IN THE TREATMENT OF PSORIASIS.—Jarisch has been led to try the action of this substance in psoriasis on account of its near chemical relationship to chrysophanic acid. In thirteen cases he obtained results with a salve, one part to four, fully as favorable as with chrysophanic acid salve of twenty per cent. strength, and without any accompanying dermatitis.—*Ibid*.

BELLADONNA IN INTESTINAL OBSTRUCTION.—Dr. Norman Kerr read a paper at the annual meeting of the British Medical Association, in which reports were given of five severe cases of intestinal obstruction successfully treated by two-grain doses of belladonna, every one or two hours, until from twelve to sixteen grains had been taken.

According to an Arabian proverb the world is supported by four columns; the justice of the great; the prayers of the righteous; the bravery of the valiant, and the science of the physician.

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TORONTO, JAN. 1, 1879.

THE PAST YEAR.

We have again entered upon a new year, and standing upon its threshold, we look back to take a retrospective glance at the progress which has taken place in medical science during the past year. At a first glance we discover nothing of a very startling character to chronicle; but on a careful survey, we find that much steady progress has been made in all the departments of our professional calling, and we have reason to feel abundantly satisfied with the results of the year's labors. The science of medicine and all that relates to it, is every year becoming more firmly established, improvements and new discoveries are being constantly added, new remedies and appliances are being introduced from time to time, and a more thorough knowledge of the action of medicines on the human system is being rapidly acquired. The various annual meetings of the medical body politic, both in America and Europe, have been as usual well attended, and much good work has been done in the cause of suffering humanity by these gatherings of scientific men. State or Preventive Medicine, the highest form of medical science, has received a considerable share of attention both at home and abroad.

The International Congress of Hygiene met in Paris, in one of the halls of the Palais du Trocadero, in August, and remained in session several days. It was a most successful meeting, when it is remembered that it was the second meeting of the kind ever held, the first having taken place two years ago, at Brussels. M. Bouchardat, Prof. of Hygiene of the Paris Faculty, is the honorary President; the acting President was M. Gubler. The latter, in his opening remarks, alluded to the

valuable conquests of modern hygiene in the prophylaxis of disease, and the social aspects of sanitary science.

In the matter of sanitary legislation in this Province, some considerable progress has been made. At the last session of the Ontario Legislature a committee was appointed to inquire into, and report upon the sanitary condition of the Province. Several medical men appeared before this committee to give the benefit of their knowledge on the subject; and a series of questions were also addressed to medical men in different parts of the country, asking for information on various subjects. The information thus obtained will, in all probability, be made the basis of legislation during the approaching session of the Legislature.

The Annual Meeting of the British Medical Association was held at Bath, in the month of August, under the Presidency of Dr. Falconer. A painful incident at the opening, was the reading of the address prepared by the late President, Dr. Wilkinson, who died a short time before. The report of the council showed a flourishing condition of the Association. Seven hundred and forty-nine members had been elected since last meeting, making a membership in all of 7,536, and an annual income of £11,000. The meeting was not so large as on some former occasions, but was none the less interesting. Some excitement and interest was created by the presence of Mrs. Garrett Anderson, in advocacy of her claim to the membership of the Association, but a resolution was passed, affirming "that no female shall be eligible for election as a member of the Association." Drs. Billroth, Esmarch, Charcot, Liebrich, Pasteur, Ludwig and Sayre were elected honorary members. Dr. O'Connor was elected President for the ensuing year, and Cork appointed as the next place of meeting.

Apropos of the subject of the admission of women, it may not be out of place to mention here that the Royal College of Physicians, London, has refused, by an overwhelming majority, to confer the license upon women.

The American Medical Association held its Annual Meeting at Buffalo, in June, and was very largely attended. The annual address was delivered by Dr. Richardson, of Louisiana, and was chiefly devoted to reform in medical education. Many excellent papers were read in the

various sections, all of which will appear in the Transactions. Dr. Theo Parvin, of Indiana, was chosen President, and Atlanta, Georgia, was designated as the place of next meeting, in May, 1879.

The annual meeting of the Canada Medical Association was held in Hamilton and was well attended. Dr. Workman, the venerable president, delivered the annual address, which was published in our columns. Some of the papers read were exceedingly interesting, and we regret very much that they have not yet been published. Both from a scientific and social point of view the meeting was a success. Dr. McDonald, of Hamilton, was elected President for the ensuing year, and the next annual meeting will be held in London on the first Wednesday in September, 1879.

In medicine and therapeutics much progress has been made. The question of blood-letting is still being revived from time to time. Wharton Jones, in the *London Lancet*, Nov. 2nd, gives his views regarding the subject. He thinks by the prevailing abstinence from venesection inflammation of important organs is often allowed to run a prolonged and disastrous course which might be prevented by the timely abstraction of blood in such quantity as could not be injurious to the patient.

The subject of transfusion has also been debated and experiments have been performed by Dr. Brown Sequard, of Paris, with different fluids. He tried normal blood, blood deprived of fibrin, and milk. In each case he found the result to be the same, but the quantity of milk used was greater than the other fluids. He considers it preferable to inject into the arteries rather than the veins, and to be done slowly. Dr. Thomas, of New York, has also tried the transfusion of milk, and is convinced that it acts as well as blood.

Atropine as a remedy for night sweats in phthisis has been brought into favorable notice. It has been tried in the Toronto Hospital with uniformly good results. The dose is about one-fortieth of a grain of the sulphate of atropine at bed-time. Chloral hydrate still continues to be used with great success in the treatment of delirium tremens, Dr. Farrar in the *Brit. Med. Journal* for January, 1878, speaks in the strongest terms of its beneficial effect after the failure of the opium treatment. The subcutaneous injection of ergotine is now almost universally considered a sovereign remedy for hemo-

ptysis, hematemesis, uterine hemorrhage, etc. Its *modus operandi* depends upon its action on the vaso-constrictors. Where there is much pain or irritable cough it is combined with morphine.

Dialyzed iron, which has been so favorably received by the profession, has lately been used by way of hypodermic injection. Prof. Da Costa, of Philadelphia, has tried it with marked success in several cases of anæmia and chlorosis. The iron was used in both the diluted and undiluted state, without any unpleasant effects. It was injected in from fifteen to thirty minim doses daily. The muriate of calcium has been highly extolled by Dr. Bell, (*London Lancet*) in the treatment of tuberculosis. He gives it the preference over all other remedies in the treatment of this affection. He has used it also successfully in scrofulous disease of the bones, tabes mesenterica, &c. The dose is 20 grains, more or less, after meals. Iodide of ethyl has been employed by Prof. Sée for the relief of the paroxysms of asthma. It is administered by inhalation, a few drops being placed on a handkerchief and applied to the nose.

Nitrite of amyl, so much vaunted of late as a remedy for sea-sickness, has been used to cut short the cold and hot stages of ague, and thus facilitate the treatment. Some experiments were performed in the Greenwich Hospital by Dr. Ralfe with such apparently satisfactory results as leads us to hope that with a more extended trial its efficacy may be established. The use of carbolic acid in small pox has been frequently alluded to in the different medical journals during the year. It has been given internally in small doses and also used as a lotion. in the proportion of 1 in 20, applied to the face. It seems not only to act as a disinfectant, but also to prevent the pustules becoming confluent and to moderate the occurrence of pitting.

Nux vomica has been lately used with success in Italy in the treatment of diabetes. Two cases are reported as having been cured by it, in the *Gazzetta Medica di Roma*, under the care of Dr. Zarzana. The process of tapping for dropsy of the limbs, first introduced by Dr. Southey, has been put into practice with favourable results. It consists in the introduction of minute canulæ made of gold which gradually drain away the serum lying among the tissues. To the extremity of the canulæ are attached slips of rubber tubing about two feet in length to convey the fluid into a vessel for

its reception. Capillary tubes have also been used for paracentesis abdominis and thoracis by Dr. Goodhart, of Guy's Hospital.

The subject of metalloscopy and metallotherapy has engaged the attention of scientific physicians, in the treatment of hystero-epilepsy, in which anæsthesia or hemianæsthesia are frequent symptoms. It consists in the application of certain metals varying according to the idiosyncrasy of the patient, the process of ascertaining which is called metalloscopy. Bits of metal are applied to some part of the surface on the anæsthetic side. A piece of metal is also introduced into the mouth or applied over the mastoid process. If the proper metal has been hit upon, the sensibility is restored wholly or in part, if not, another and another kind of metal is tried until the proper one is ascertained which is then kept applied, or some salt of the metal administered. The metal is supposed to act by creating a current of electricity which effects the vaso-motor nerves, so that an increased blood-supply is sent to the parts.

The direct method of artificial respiration introduced and practised by Dr. Benjamin Howard has been on its trial during the past year. The claims of superiority over Marshall Hall's or Sylvester's method, are its simplicity and the readiness with which it can be employed by water police and others who may have once seen it put in practice.

A fearful epidemic of yellow fever occurred in the Southern States of America during the summer and autumn, resulting in great loss of life. The epidemic broke out in July and continued up to the month of November. It commenced in New Orleans and spread with great rapidity to Memphis, Vicksburg, Mobile, Grenada, Key West and other places. In New Orleans alone, up to Oct. 12th, there were 11,206 cases and 3,400 deaths, showing a mortality of more than 20 per cent. This awful list of deaths has rarely ever been equalled, and scarcely surpassed in the annals of famine and war. Many medical men, ever faithful in the discharge of their noble calling and unwilling to desert the unfortunate victims, although the people were fleeing in all directions, fell like heroes at their posts. An outbreak of contagious pneumonia in certain parts of England during the past year has renewed the discussion on this important subject. It is supposed to be a *pythogenic* pneumonia, and is infective. It has some resemblance to the pleuro-pneumonia of cattle.

In the domain of surgery much has been accomplished, and several new and important procedures have been introduced into practice. A new departure in the operation of lithotrity has been brought forward by Dr. Bigelow, of Boston. Instead of short and repeated operations, he recommends longer time and an attempt to break up the stone, and wash it all away by a contrivance for the purpose, if possible at a single operation. Thus far, the success of the prolonged operation has been very good. An improvement has also been introduced in the operation for removal of the tongue in cancer, by Dr. Shrady, of New York. It consists, first, in ligaturing the lingual arteries at the posterior border of the hyo-glossus muscle, after which the removal of the tongue, it is claimed, is almost perfectly bloodless.

The results obtained with the catgut ligature have been conflicting. Some surgeons have found it uniformly effectual and safe; others have met with only disappointment and disaster. It is liable to soften and the knot to unloose, and thus permit of secondary hemorrhage. The use of the elastic ligature for the division of the prepuce in the treatment of phimosis has been tested in several cases, and with very good results. It is applicable in a number of cases where circumcision or the use of the knife is inadmissible.

The operation for the removal of the lower end of the rectum for the relief of cancer, has been several times performed during the year, and quite recently by Dr. Fenwick of Montreal. The success which has attended the operation so far, is such as to encourage a repetition in certain cases where there is reason to believe that the disease can be surrounded and completely removed by the knife. The control of the bowel afterwards is wonderfully good considering the nature of the operation, and in those cases in which the sphincter action is impaired or lost, the patient still retains the sensation of the presence of fæces, and can make preparations for cleanliness.

Another case of removal of the spleen, has been put upon record by Dr. Browne of the Bromwich Hospital. The tumor which proved to be a simple hypertrophy, weighed 18½ pounds. There was no hemorrhage. Four large arteries required the ligature. The patient, previously very much reduced—in an almost hopeless condition—died five hours after the operation. The treatment of

varicose and other chronic ulcers of the leg, by the elastic bandage has been successful in the hands of Dr. Martin of Boston, and others who have tried it. The bandage is of pure rubber 10 feet long and three inches wide, and is applied as an ordinary bandage to the leg. It is removed at night, and the ulcer dressed with suitable dressing.

The treatment of aneurism of the aorta by the the subcutaneous injection of ergotine conjointly with galvano-puncture has been tried, with very favorable results, by Dr. Carter of Queen's Hospital, Birmingham. Two needles connected with a Stohrer battery were used, first commencing with two, and afterwards increasing to twelve cells immersed half way in the acid. The operation was twice repeated at the end of a week or ten days, in each interval. The needles were allowed to remain in the sac from 35 to 50 minutes at each sitting. The result exceeded the most sanguine expectations, the patient being very much relieved, though not completely cured. Excision of the bones of the foot for the cure of talipes in the adult, has been successfully resorted to by Dr. Bryant of Guy's Hospital, and others in Europe and America during the past year. Two cases of gastrotomy have been reported. One successful case by Prof. Trendelenburg of Rostock, in a boy eight years of age, and an unsuccessful one by Dr. Bradley of Manchester, in a boy 14 years of age. Several successful cases of paracentesis of the pericardium have been reported in Europe and America, so that the operation has come to be regarded as a perfectly legitimate and favorable one in certain cases. A small aspirator needle is that generally used, and no difficulty has been experienced in the operation. The needle is introduced in the fifth intercostal space, nearly in the position of the normal apex-beat. Aspiration of the knee joint has been several times performed,—in one case in the Toronto general Hospital under the writer's care—with the most beneficial results. If performed so as entirely to exclude the air, it is perfectly safe. Prof. Langenbeck successfully extirpated the left kidney of a woman aged thirty two years. This operation has also been successfully performed by Dr. Martin of Berlin.

The operation of laparotomy has been resorted to by many surgeons on the Continent, both for the relief of disease and for the purpose of clearing up the diagnosis in obscure cases. The ab-

dominal cavity is now opened with as little hesitation as that with which the ordinary surgeon would open an abscess. Gussenbauer of Luttich performed the operation of resection for intestinal obstruction, removing four inches of the lower part of the descending colon and a tumor which was the cause of the obstruction. The patient died from septic poisoning, caused by the escape of the contents of the bowel into the abdominal cavity.

The new antiseptic thymol has received marked attention among British and Continental surgeons during the past year, and bids fair to supplant carbolic acid as the most available surgical antiseptic we possess. It is the essential principle of the oil of thyme, and is a more powerful antiseptic than carbolic acid. It is not so irritating, and in antiseptic surgery its advantages over carbolic acid are most marked. Spencer Wells has used it in a series of ovariectomy cases with the most satisfactory results. The strength used is one gramme (15 grs.) of thymol, to one thousand grammes of warm water. It does not in the slightest degree interfere with the healing process.

In obstetrics and obstetrical surgery we note a few novel features. In the treatment of vomiting of pregnancy, much benefit has been derived in many instances from the topical use of caustic applications to the cervix uteri. In some cases, a single application of the caustic was sufficient to allay the most distressing vomiting. Laparotomy has been resorted to in several cases in the United States, by Prof. Thomas and Dr. J. C. Skene, and once by Dr. Hime of Sheffield, England, as a substitute for Cæsarian section. The operation is performed by making an incision in the abdomen from the anterior superior spine of the ilium to the spine of the pubis. The peritoneum is drawn upwards, a probe is introduced into the vagina which is pushed upwards into the bottom of the wound and divided. The os is reached, the hand introduced and delivery effected by turning. The advantages are, the peritoneum and uterus are not wounded, there is very little loss of blood, and the shock is less than in Cæsarian section. The use of hot water in surgical cases and in uterine hemorrhages, has been still further put upon its trial. In some severe cases of uterine hemorrhage, it was found to produce immediate and energetic contraction of the uterus. The temperature of the water should be about 120° F.

The following case is novel, and if the cure should be permanent, will have an important bearing on operative gynecology in relation to disease of the uterus. We do not know of a similar case on record. It is a case of enucleation of the uterus per vaginam for epithelial cancer, reported in the *Pacific Medical Journal* for Dec. '78. The operation which was successful in its results so far, was performed by Prof. Lane of the Medical College of the Pacific. The uterus was well drawn down, and the process of enucleation commenced by severing with a blunt dissector and pair of scissors the tissues immediately surrounding it, avoiding the rectum and bladder, until the fundus was reached, when the Fallopian tubes were divided and the uterus removed. Several ligatures were applied to the bleeding vessels. The patient made a rapid and satisfactory recovery.

In chemistry we have to record the brilliant discovery of Mr. Piquet of the liquefaction of oxygen. Under a pressure of 300 atmospheres and the influence of intense cold, oxygen becomes a liquid. Lately the important discovery has been made by Norman Lockyer and communicated to the Academy of Sciences in Paris, that many of the so-called elementary bodies are in reality compounds, and that some of the metals are interchangeable at very high temperatures.

The profession of the Province of Quebec was much exercised during the early part of the year over a case of alleged forgery, charged against Drs. G. E. Fenwick and E. D. Worthington, the former the late registrar and the latter one of the governors of the College of Physicians and Surgeons of Quebec, in issuing and ante-dating a certificate of license to Dr. Mines of Massawippi. The license was purposely ante-dated in order to secure Dr. Mines' vote at the then approaching election of the Board of Governors. It was not denied that a grave irregularity was committed, but nothing of a more serious character was shown to have existed.

A revision of the British Medical Council has been advocated by the medical journals of Great Britain. At present it consists of twenty-three members—nine from the medical and surgical corporations, eight from the universities, and six appointed by the crown. It will thus be seen that the medical and surgical corporations have a preponderance in the council, and this is not considered desirable. The general profession, as such, may be

said not to have any representation in the council. The whole system of representation is so unjust and absurd, that a revision should no longer be delayed. In Canada an improvement in a similar direction in reference to the Ontario Medical Council, must sooner or later be considered. We have been urging, during the past year, an increase in the territorial representation, but so far the profession at large has taken very little interest in the matter.

The question of doctor's fees, always an interesting one, has been brought prominently before the public in Great Britain through the discussion in the *London Times* and other papers. It arose out of the fact that some physicians had the good sense to demand *two* guineas, instead of one as formerly, for first consultations. There can be no doubt that the profession, both here and in Great Britain are inadequately paid for their services, and we may be quite sure that the public will not come to the rescue and offer two guineas or two dollars, as the case may be, where only one is demanded. The profession has the remedy in its own hands; let physicians demand a proper remuneration and they will receive it. They must fix their own value, and stand by it. It is useless to urge that it cannot be done; it *can*, and *must* be done sooner or later.

The following new medical books were issued from the press during the year. A few of them are new editions of works previously published:—*Functions of the Brain* by Ferrier; *Gonorrhœa and Syphilis* by Durkee; *Action of Medicines* by Ott; *How to use the Ophthalmoscope* by Browne; *Ziemssen Volumes VIII, XIII, XIV, XVII*; *Principles and Practice of Surgery* by Erichsen; *Practical Chemistry* by Clowes; *Pathological Reports, Montreal General Hospital* by Osler; *Pathological Anatomy* by Orth; *Text-book of Physiology* by M. Foster; *Lectures on Clinical Medicine* by McCall Anderson; *Guide to Therapeutics* by Farquharson; *Insanity in Ancient and Modern Life* by Tuke; *Fownes' Chemistry*; *Atlas of Skin Diseases* by Duhring; *Antagonism of Therapeutic agents* by Fothergill; *Science and Practice of Midwifery* by Playfair; *Anatomy Descriptive and Surgical* by Gray; *Principles and Practice of Surgery* by Gant; *Principles and Practice of Surgery* by Ashhurst; *Principles and Practice of Surgery, Vol. I.* by Agnew.

In referring to our obituary record we find a

long list of worthies departed. Among those of Europe may be mentioned Claude Bernard, Rokitsky, Blundell, Hilton, Stokes, Churchill, Wunderlich, Griffiths, Basham, Bartels, Linhart, Weber, &c. In the United States we may specially mention Atlee, Peaslee, Clarke (Boston), and F. G. Smith, (Philadelphia); besides a large number of brave men in the yellow fever epidemic. Among our own brethren in Canada whose loss we deplore are Drs. Hodder, B. Workman, Bridgman and Henry (Toronto); Bullen (Hamilton); R. S. McDonnell, Peltier, Bell, Park, Duhamel and Malhiot (Montreal); Rankin (Picton); Lister (Belleville); Adams (Tavistock); Wright (Oakville); Patterson, (Streetsville); Waddell (Truro, N.S.); Clawson (Salisbury, N.S.); Lawson (Bedeque, P.E.I.); Davignon (Longueuil, Que.); Haney (Fenwick); Langstaff (King); Matheson (Embro); etc. etc.

The past summer in Canada has been remarkable for its extremes of heat during the summer months, especially July and August; and excess of moisture during the latter part of summer and beginning of autumn, yet the health of the community has been on the whole very good. There have been a few outbreaks of diphtheria and scarlet fever in different parts, and especially in the Maritime Provinces, but no serious epidemics, and no sad disasters by sea or land.

We conclude by wishing all our readers a happy New Year, and many pleasant returns of the season.

THE LATE DR. WADDELL.

The late Dr. Waddell, whose death was noticed in our last issue, was for more than a quarter of a century Medical Superintendent of the Lunatic Asylum, New Brunswick. He was born in Truro, N. S., in 1810, and was therefore in his 68th year at the time of his death. He commenced his medical studies in 1833, and received the diploma of the Royal College of Surgeons, London, in 1839. He then went to Paris where he remained two years in attendance upon the hospitals and medical lectures. On his return home he commenced practice in Truro. In 1849 he was appointed Medical Superintendent of the New Brunswick Lunatic Asylum, the duties of which he continued to discharge with untiring energy and fidelity until the spring of

1876—a period of 27 years. The constant work and worry in the management of an establishment of this kind soon make sad havoc of the strongest and most robust, and Dr. Waddell was no exception to the rule. Finding his health giving way he retired from the asylum, in order to recuperate; but instead of that repose for which retirement was sought, it was found that the change from an active to a passive life was more than his shattered constitution could withstand. He was a man possessed of great kindness of heart, of a benevolent disposition, and was eminently qualified for the discharge of those duties, which formed the great business of his life. He was gentle, yet possessed of sufficient firmness, and never failed to command respect and obedience. In his manner he was affable and gentlemanly, and many visitors to the asylum will remember with pleasure the kind treatment they received from him. No man was better known in the Maritime Provinces; and there is no one whose memory will be held in more grateful remembrance than that of Dr. Waddell. His wife, who survived him only a few months, died very suddenly on the 3rd ult.; so long and happily united in life, they were not long separated in death.

TRAINING SCHOOL FOR NURSES.—A training school for nurses has been established in connection with the Toronto General Hospital. Dr. O'Rielly, the Medical Superintendent of the Hospital, visited several institutions of the kind in the United States, during the past summer, and his report has been made the basis of the present arrangement. The duration of the course is two years, and is very complete. Instruction will be given by attending and resident physicians, at the bedside of the patients, and in various ways; and also by the matron and head nurse. During the first year the candidates will be supplied with board and lodging, and will be paid \$6 per month in return for their services. During the second year they will receive \$9 per month, in addition to board and lodging. Candidates must be over twenty and under thirty-five years of age. Applications for admission should be made as early as possible, to the Medical Superintendent, or the Matron of the Hospital.

URANINE.—We are indebted to the editor of the *Scientific American* for a sample of this new coloring matter, derived from coal tar. It is the most

highly fluorescent body known to science, and is a powerful coloring agent, a single grain imparting color to 500 gallons of water. It is a reddish-colored powder, soluble in water, and produces a soft green color, which viewed by transmitted light becomes changed to a bright golden or amber color. A few atoms sprinkled in a tumbler of water produces a most beautiful appearance. Each atom as it sinks in the water appears as a bright green rootlet, and the tumbler soon appears as if crowded full of beautiful plants. These gradually enlarge and fuse, producing an uniform green colored fluid. The editors of the *Scientific American* are sending samples to all their readers.

DETECTION OF STONE IN THE BLADDER.—Dr. Andrews, of Chicago (*Medical and Surgical Reporter*, Philadelphia, Oct. 12), has devised an apparatus for detecting the presence of very small calculi in the bladder. It consists of a thin metallic tube, an ordinary sound would do as well, to the extremity of which is attached a small rubber tube two feet in length, and terminating in an ear piece. The ear piece is introduced into the meatus, and the slightest jar of the instrument in contact with the calculus is distinctly heard.

SPECIAL NOTICE.—We desire to draw the attention of our readers to the following advantages to be obtained by subscribers to the *Canada Lancet*, who pay their subscriptions in advance. We will supply the *Canada Lancet* and the following journals at the *rate* mentioned after each;—*Braithwaite's Retrospect*, as usual, for \$5.00; *London Lancet*, English edition (weekly), the leading medical journal of Great Britain, for \$10.00—the bare price of the *London Lancet* to ordinary subscribers in Canada; *Medical Times and Gazette*, London, \$10.00; *Obstetrical Gazette* (monthly), Cincinnati, \$5.00; *Michigan Medical News*, \$3.75; *Scientific American*, \$5.75; *Popular Science Monthly*, \$6.75; *Canadian Illustrated News*, \$6.00; any of Harper's, \$6.25; any visiting list, \$4.00; *Butler's Physician's Record Book*, full size, \$7.00, etc., etc. See commutation Rates.

DISTINGUISHED VISITORS.—Dr. Andrew Clark, physician to the London Hospital, who accompanied H. R. H. the Princess Louise and the Marquis of Lorne, delivered a lecture on phthisis before a large body of physicians and medical stu-

dents of Montreal. He was the same evening entertained by the profession at a dinner at the Windsor Hotel.

He returned by way of New York, where he was met by Dr. Callender, the distinguished surgeon of St. Bartholomew's Hospital, London. Dr. Clark again delivered his lecture here on the nature and treatment of phthisis, at the Bellevue Hospital Medical College. Dr. Clark is clinical lecturer on diseases of the lungs in the London Hospital, author of the "Anatomy of the Lungs," "Evidences of Arrest of Phthisis," etc., etc.

Mr. Callender visits Philadelphia before his return.

BRANT COUNTY MEDICAL SOCIETY.—The Brant County Medical Association convened in Brantford, on the 3rd of December, 1878.

The members present were:—Drs. Burt (president), Marquis (vice-president), Harris (sec.-treas.), Griffin, Kitchen, Sinclair, Healy, and Tegar.

Dr. Marquis read a very comprehensive and interesting paper on Diphtheria, which elicited considerable discussion by all present.

After some miscellaneous business had been disposed of, the Society adjourned, to meet again at the Kirby House on the first Tuesday in March.

DISTURBANCES AMONG THE MEDICAL STUDENTS IN ST. PETERSBURG.—The introduction of obnoxious regulations in reference to their studies has caused an uprising of the students of the St. Petersburg Academy of Medicine and Surgery. Several hundred of them went in a body to the Czar-wich's palace to present a petition, but the Czar was not at home. They were ordered to disperse by the Prefect of Police. The day following 140 of them were arrested, and some of them ill-treated. The Prefect of Police promised to bring them an answer to their petition, but instead of that, the colleges were surrounded by 2,000 gendarmes and cossacks. The lecture halls have all been closed.

TROMMER'S EXTRACT OF MALT.—We have lately been using pretty extensively the above extract with very excellent results, as a substitute for cod-liver oil, where the latter cannot be tolerated. It is also very serviceable in certain forms of dyspepsia. It agrees with the most fastidious stomach, and is readily taken by children.

HEALTH OF NEW YORK.—Through the kindness of Dr. Nagle, medical health officer of New York city, we have been favored with the report of the health department for the year ending December 31st, 1877. There were, during the year, 26,203 deaths from all causes, which makes an annual death rate of 24.50 per 1,000. Of these, 8,042 were from zymotic diseases; 5,800 from constitutional diseases; 9,720 from local diseases; 1,615 from developmental diseases; and 1,026 by violence.

There were only 14 deaths from small-pox, but scarlatina and diphtheria each show a mortality of upwards of 950. There were 3,557 deaths from diarrhoeal diseases; 4,044 from phthisis; 2,148 from pneumonia; 2,378 from diseases of the brain and nervous system, and 1,139 from diseases of the kidney. Infant mortality, as usual, brings up the rear with a frightful holocaust, the number under five years being no less than 12,307.

SULPHUR IN SCARLET FEVER AND DIPHTHERIA.—Since Dr. Pigeon recommended the treatment of scarlatina by sulphur, in the *London Lancet*, others have been induced to try it, with marvelous success. The plan adopted, is to thoroughly anoint the patient twice daily with sulphur ointment made with oil. Burn sufficient sulphur, on coals on a shovel to fill the room with the fumes, which are of course inhaled by the patient. With this mode of treatment the most severe cases do well, and none are over eight days in making a complete recovery. In diphtheria the sulphur treatment excels every other. A few grains of precipitated sulphur are blown upon the fauces every half hour through a glass tube, and the throat is gargled frequently with sulphurous acid and water 1 part in 16.

PREVENTIVE TREATMENT OF HARE-LIP AND CLEFT-PALATE.—In an article in the *Practitioner*, Dec. '78, the writer, Dr. Tuckey, recommends the use of the salts as found in bone as a preventive of these deformities. He would prefer to administer bone reduced to powder, and recommends its administration during the first three months of utero-gestation. Cases are given in which this treatment has been successful, even where all the previous children were deformed.

CANADIANS IN ENGLAND.—The following gentlemen passed the examination of the Royal College of Surgeons, Eng., in November last:—

Chas. Sheard, M.B., Luke Teskey, M.B., and Wm. E. Winskill, M.B., all of Trinity College; the two former passed the primary, and the latter the final examination. Dr. Teskey has returned to Toronto for the winter to attend to his duties in the Dental College here, but will revisit England again in the spring, to complete his course.

CURARE IN EPILEPSY.—Curare has been highly extolled of late, for the treatment of this hitherto intractable disease. It is claimed that it will cure where all other remedies have failed, and that even the very worst cases are benefited by its use. It is administered hypodermically in small quantities prepared as follows. Seven and a half grains of curare are dissolved in one and one fourth drachms of water, to which a drop or two of hydrochloric is added to favor solution. Of this solution 8 drops are injected under the skin every 5 or 6 days.

DEATH.—The *Kingston News* announces the death of Mr. R. A. Lavell, from throat disease, son of Dr. Lavell, of Kingston, in his 17th year. He was a young man of great promise, having carried off the Watkin's Scholarship in Queen's University. A resolution expressive of sympathy with the family in their deep affliction, was presented by his classmates.

SPONTANEOUS DISLOCATIONS.—A celebrated contortionist gave an exhibition of his wonderful powers a short time ago at the Toronto Hospital. He possesses the rare power of being able to dislocate at will all his joints except the elbow, even the phalangeal. In his case there was no doubt left on the minds of those who examined him, that the dislocations were complete in every case.

APPOINTMENTS.—Dr. Forrest has been appointed head master of the Bradford High School. Dr. Atkinson, of Prescott, has been appointed head master of the High School, Brockville. Dr. R. Zimmerman has been appointed one of the pathologists to the Toronto General Hospital.

DIPHTHERIA AND SCARLET FEVER.—Diphtheria is very prevalent at present in Bridgewater, N.S. A very fatal type of this disease is also raging at Stanbridge, Que., and scarlet fever is prevalent in Lennoxville, Que.

DR. YATES, of Kingston, has returned from a trip to Bermuda, very much improved in health.

LITERARY NOTES.—*The Popular Science* monthly will in future be enlarged, the *supplement* being consolidated with it. This places it ahead of all other monthly scientific journals of the kind in America—supplied with the CANADA LANCET for \$6.25 per annum. The *Obstetric Gazette* published in Cincinnati is a new aspirant for professional favor. Its veteran editor, Dr. E. B. Stevens will make it a success. It improves with each issue. Supplied with the CANADA LANCET for \$5 per annum.

The following are in *press* and will shortly be issued by Messrs. H. C. Lea. "The National Dispensatory," by Profs. Stille, and J. M. Maisch; The "Principles of Surgery" by Prof. Ashhurst, Jr.; The "Principles and Practice of Gynæcology" by Dr. Emmett; The "Practice of Surgery," by Prof. Bryant, London; "A System of Human Anatomy" by Prof. Allen, etc.

Messrs. Lindsay & Blakiston, of Philadelphia have the following works in press to be issued shortly; McKenzie on the "Throat and Nose" by Dr. Brandies; "Student's Guide to Diseases of the Eye" by Dr. Power; "Students Guide to Chemistry" by Dr. Bernays; "Diseases of the Rectum," by Dr. Allingham; "Diseases Peculiar to Women" by Dr. Athill; and a "Text Book of Physiology," second revised edition with illustrations by J. Fulton, M.D., M.R.C.S., etc., Prof. of Physiology in Trinity Medical School, Toronto. A Canadian edition of the latter will also be issued by Messrs. Willing & Williamson, simultaneously in Toronto. It will be an octavo volume of between four and five hundred pages, containing numerous illustrations.

The *Index Medicus* is the title of a monthly classified record of the current medical literature of the world, to be issued shortly under the supervision of Dr. J. S. Billings of the U. S. Army, Washington. It will record the titles of all new publications in medicine, surgery and the collateral branches and original articles in medical journals etc., received during the preceding month. The first number will be issued in January '79 and the subscription price will be \$3 per annum.

The first number of the *National Medical Review*, a new medical monthly published in Washington, U. S., has come to hand. It fills a *want* long felt in that district.

We are glad to learn that Dr. Russell of Quebec, who has been dangerously ill for the past two months, has entirely recovered.

NOVELTIES.

A COMBINED STOPPER AND GRADUATE.

THIS new device of Mr. W. L. Keller, of Baltimore, Md., is so simple, handy, and economical that it is somewhat surprising that it has not sooner been suggested. The completeness of the adjoining illustration renders it unnecessary to give any detailed description, and we will say only that for expensive essential oils or substances which are with difficulty removed from glass, for the bottles in a prescription case and for other purposes which



will readily occur to every pharmacist, the usefulness of these stopper-graduates must at once be apparent. The labour of cleansing graduates is by the use of these at once reduced to a minimum, and the saving of time and the certainty of finding the measure just where it is wanted are no small items for consideration.—*New Remedies.*

ANOTHER FORTUNATE MEDICO.—Dr. McLaughlin of Enniskillen, has received the nomination of the convention of West Durham for the Local Parliament. If he accepts he is said to be certain of election.

Books and Pamphlets.

THE CELL DOCTRINE. ITS HISTORY AND PRESENT STATE, by James Tyson, M.D., University of Pennsylvania. Second revised edition with illustrations. Philadelphia : Lindsay & Blakiston. Toronto : Willing & Williamson.

This little manual contains a very concise and interesting abstract of all that is known in regard to the cell doctrine. The author defines the cell to be the smallest mass of living matter possessing the essential life properties of reproduction, nutrition, growth, and development. The views of Klein and others are adopted by him in regard to the structure of cells, viz : that both the nucleus and protoplasm of the outer portion contain a fibrillar network, but that the ground substance is structureless. In reference to pathological formations he says what has long been known to practical physiologists, that there is no special form of cell known by its shape to belong to certain pathological formations as "cancer cell" "fibroid cell," "sarcoma," etc. The "cancer cell," which was so long an object of wonder and fear, and eagerly sought for as such, is no longer acknowledged to be anything peculiar as to form. At the same time, when cells from a suspected growth are observed to be very large, to contain numerous nuclei or centres of bioplasm, and to exhibit great variety in shape, we have evidences of that rapidity of growth which is more or less characteristic of malignant formations.

APPLETON'S JOURNAL FOR 1879.

This magazine is devoted entirely to literature of a high order of excellence, by writers of acknowledged standing. Fiction still occupies a place in this Journal, but space is given to articles bearing upon literary and art topics, to discussions of social and political progress, to papers addressed distinctly to the intellectual tastes of the public, or devoted to subjects in which the public welfare or public culture is concerned.

The *Canadian Illustrated News*, a weekly illustrated newspaper, published in Montreal every Saturday. It is really a credit to Canadian enterprise. It is printed on good paper and contains most beautiful illustrations of every day life and scenery. Send for the Xmas number. Subscription \$4 per annum ; to subscribers of the LANCET \$3 in advance.

REST AND PAIN, by John Hilton, F.R.C.S., New York : Wm. Wood & Co. Toronto : Willing & Williamson.

This is the first volume of Wood's Library of standard medical authors. It will be of incalculable advantage to medical science if our leading members of the profession would, instead of wandering off to speculations and transcendental theory, be content to record the result of their observations and reflections, during an active practice of many years. The principal object the late Mr. Hilton had in view in delivering these lectures, was to show how largely we are indebted to Nature, in her recuperative powers, for success in practice, particularly when the medical attendant comes to her aid, by enforcing on his patient the therapeutic value of mechanical and physiological rest, and is sensibly alive to the diagnostic value of pain. To do anything like justice to a review of this admirable work, passages should be cited in which the author points out the various means adopted by nature to secure the needful rest, but as our limits will not permit of a lengthened notice we must content ourselves with recommending it to our readers as an absolutely necessary addition to their library, being well assured that they will find it not only an acceptable, but an eminently useful one.

PHYSICIAN'S VISITING LIST FOR 1879, by W. Oldright, M.D., Toronto : Wm. Warwick & Co. Price \$1.25.

The above visiting list is ruled for a month instead of a week, as is the case with most lists. This is by some considered an advantage, as it saves the changing of names or posting oftener than once a month.

CORONERS :—A. Decow, M.D., of Highgate, to be an Associate Coroner for the County of Kent.

C. T. Campbell, M.D., of London to be an Associate Coroner for the County of Middlesex.

Marriages & Deaths.

On the 4th of December, at Seaforth, Dr. J. S. Lynch, of Winnipeg, Manitoba, to Matilda, step-daughter of Dr. T. T. Coleman.

On the 28th of Nov., Lewis Langstaff, M.D., of King, aged 56 years.

At Hot Springs, Arkansas, on the 16th December, Dr. Neil Matheson, of Embro.

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

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Original Communications.

THE HISTORY OF GERMS, AND ITS APPLICATION TO MEDICINE AND SURGERY. BY DRS. PASTEUR, JOUBERT, CHAMBERLAND.

BY JOSEPH WORKMAN, M.D., TORONTO.

Concluded.

"We have distinguished the carbuncle bacterium, and the septic vibrio, as agents of contagion, disease, and death, not because they generate chemical poisons, but because the animal economy can afford them the means of culture. We now have to notice a third species, equally capable of multiplying in the living body, and of provoking in it a pathological state, different, as will be seen, from the morbid manifestations which arise from inoculation of the carbuncle bacterium, or of the septic vibrio. Here we have a proof that the pus formed by our organism is allied to the specific character of its structure. The quantity of pus, for example, furnished by the bacterium and the septic vibrio, at the point of inoculation, and outside of it, is so little apparent, that it frequently passes unnoticed.

The microbio of which we now treat, may propagate itself through all the muscles, penetrate into the blood, into the lungs and the liver, and determine in these organs the formation of purulent foci, metastatic abscesses,—in a word, a purulent infection and death. This invasion, however, of the whole body, is much more difficult than that of the carbuncle bacterium, or the septic vibrio. Whilst the inoculation of the most minute quantities of the latter organisms conducts, so to say, infallibly to death, that of our microbio, in similar proportions, is limited to the production of abscesses which cure spontaneously, either because they suppurate and open, or because the pus is resorbed, and the

microbio which accompanied it disappears, conquered by that which I would call life, vital resistance, *vis medicatrix*. If, however, the number of abscesses have been increased by that of the inoculations, it frequently happens that the cure of these cannot be effected, and it is then the microbio penetrates through every part, and the muscles become as if impregnated by it.

We may say that this new organism, previously subjected to a temperature of 110° C. (230° F.) and thus entirely deprived of life, yet preserving its form and volume, provokes, when inoculated under the skin—in the same manner, as inert solid bodies, abscesses consisting of pus entirely pure, free from smell, and devoid of living organisms. This mode of inoculation does not, however, permit the production of abscesses in the viscera. In these conditions the dead microbio operates only locally; but in the same manner as when inert bodies are injected into the blood, and the formation of metastatic abscesses is provoked, so also, it is easy to obtain such abscesses either by the living, or the dead microbio, by injecting substances containing it into the jugular vein. In this case, the lungs, and especially the liver, become filled in twenty-four hours with an infinite multitude of metastatic abscesses, in all stages of evolution, from the mere inflammatory blotch to the small white pustule, full of pus, surrounded by a yellowish areola. As regards cure, that is the disappearance of the abscesses, matters progress differently in the two sorts of inoculation. The animal inoculated with the living microbio almost always dies speedily, and any part of the liver or the lung immersed in an inert liquid, reproduces the microbio. If the consequences of the inoculation have not been fatal, the disappearance of the abscesses and of the microbio in the viscera, is more slow than in the cases inoculated with the dead microbio. It may therefore be inferred from the preceding facts, that pus, accompanied by living microscopic beings, whose life is possible in the animal economy, gives place to disorders of greater severity, and more difficult of resolution, than pus, which may be called pure.

We have here an example of a purulent infection localized in the viscera, and provoked by extraneous bodies; or by pus entirely free from living organisms. It is the case of the thorn of Van Helmont. An extraneous body leads to formation

of pus; proper pus has this faculty, and it is thus that we may say metaphorically, pus engenders pus.

If time would permit I might allude to the process of the resorption of metastatic abscesses. The phenomena presented in these minute formations are truly curious, and that which is particularly interesting is to observe the facility with which nature disembarasses herself of purulent foci which cover sometimes in profusion, all the lobes of the liver.

There is another point in our studies, on which I would desire to address the Academy; I mean the special formation of pus. We have, however, arrived at conclusions so opposite to those which have currency in medical science, and it is so difficult to form a clear decision in these most delicate investigations, that I reserve it for a subsequent communication. At the present, as regards ourselves, the red globules of the blood become by transformation, pus globules. In the science of observation, however, illusion is rather easy, when it rests on only a limited basis.

I hasten to reach another order of facts, which merit still more than those which precede the attention of the surgeon; I refer to the effects of our microbio as a generator of pus when associated with the septic vibrio. Nothing is easier than the implanting of two distinct diseases, and of producing one which may be called a purulent infectious septicemia, or a purulent septicemia. Whilst the microbio generator of pus when alone, forms an allied pus, white, lightly tinged with yellow, or greenish, in no way putrid, diffused, or involved in what we call a pyogenic membrane, not offering generally any danger, especially when located in cellular tissue, and prepared, as it were for the purpose of prompt resorption, the small abscess, on the contrary, provoked by the microbio associated with the septic vibrio, takes on a gangrenous aspect, and becomes putrid, greenish, and infiltrated in the softened flesh. In this case the microbio generator of pus, carried, so to speak, by the septic vibrio, accompanies it through the whole body, and the highly inflamed muscles, filled with serosity, presenting at many places globules of pus, appear as if crammed with the two organisms. By a similar artifice, the effects of the carbuncle bacterium, and of the pus-generating microbio, may be combined, and we may obtain the superposition of two diseases, that is, a purulent carbuncle, or a carbunculous purulent infection. For the present

it is well not to overrate the predominance of the new microbio over the bacterium; if, however the microbio be associated in suitable proportion, it may completely baffle, or impede, the bacterium in multiplying in the body. Carbuncle is not manifested, and the evil, quite local, is reduced to the formation of an abscess, easy of cure. The microbio generator of pus, and the septic vibrio, being both anerobious, it will be understood, from the demonstrations in a former portion of this article, that the septic vibrio will not be much incommoded by the connexion. Nutritive aliments, both liquid and solid, will not fail in the organism, for such small beings. But the carbuncle bacterium is exclusively ærobious, (air living) and the proportion of oxygen is far from being scattered in profusion at all points in the body; a thousand circumstances may, therefore, diminish or suppress it, here and there; and as the microbio pus generator can live in air also, it may be understood that from its larger size it may draw from the bacterium alongside, the oxygen needed by it. Whatever may be the explanation of the fact, it is certain that the microbio here treated of, in certain circumstances, impedes the whole developement of the bacteria.

In conclusion we may say that the details which have preceded, show that we can, at will, produce purulent infections exempt from every element of putridity; purulent putrid infections; and carbunculous purulent infections,—various combinations of this species of lesions, according to the proportions of the specific microbes, which have been brought to act upon the living organism. Such are the principal facts I had to communicate to the Academy, in my own name, and in that of my collaborators, Drs. Joubert and Chamberland. The Academy will remember that in the course of the chyrurgical discussion, which took place before it, I presented a series of propositions without demonstrating them. All these have now been defined in the lecture which I now close. Some weeks ago (in the session of 11th March,) one of the members of the Academy, Dr. Sedillot declared that our successes, in the new departure in surgery, furnish a rational explanation to the newly inaugurated theory of the celebrated English surgeon, Dr. Lister, one of the first to comprehend its value.

TUBERCULOSIS WITH SIMPLE CHRONIC PERITONITIS.

BY C. W. COVERNTON, M.D., M.R.C.S., TORONTO.

(From Le Progrès Medical.)

Jeanne —, aged 20, entered, under the care of Dr. Constantin Paul, the Hospital of Saint Antoine for pulmonary tuberculosis. The disease had arrived at the stage of cavities. For four months her courses had ceased, but she had never experienced in any part of the abdomen the slightest pain. The patient had been ill for the period of a year; her strength was rapidly exhausted; the emaciation had become extreme, and cavities were multiplying in the superior half of both lungs. At the end of a month of residence in the hospital, the patient having fallen into a state of profound cachexia, died on the 10th of June. At the autopsy, the lungs were found drilled with numerous cavities surrounded with islets of tubercles more or less confluent. The abdomen presented most interesting lesions, the most remarkable of which are the following:—The peritoneal cavity in its whole extent is partitioned by old adhesions, very solid, laminated, manifestly vascular in a number of places. It is especially about the liver, spleen and the centre of the intestinal convolutions that these peritoneal adhesions are the firmest, leaving even a certain quantity of hepatic parenchyma adherent to these new sub-diaphragmatic membranes. The pelvic cavity is nearly free from adhesions, excepting the surroundings of the ovaries and the free extremities of the Fallopian tubes, which were fixed to the pelvic walls in the neighbourhood of the superior strait. It is important to note here that no tubercle existed in the peritoneum, nor in the new membranes, excepting at one point; in the thickness of the meso-cæcum were found two grey tubercular granulations of the size of the head of a pin. This sound state of the peritoneum from the point of view of existing tuberculosis was all the more curious that we discovered at the same time very advanced tubercular alterations of the uterus and Fallopian tubes. The right Fallopian was thick and hard, but having preserved its form, it retains absolutely in aspect and consistence the appearance of a deferent canal surrounded by diffuse tubercular infiltration. The canal of the Fallopian tube is open

as far as the margin of the uterus, and it is noticeable that the mucous membrane appears healthy, but that the walls are transformed into a rigid tube. The tissues that form the canal are in no degree softened. The left tube, on the contrary, offers a very different aspect. It is deformed by two yellowish enlargements, round, smooth, of the size of a hazel nut, evidently fluctuating. On opening the canal, the contents of the two tumors escaped in the form of a very thick yellowish white purulent liquid. Their walls, which were extremely thin were formed in great part by the peritoneum. No peritoneal adhesions existed on a level with the two Fallopian tubes. The uterus was still more changed. On a level with the superior and left angle, at the point of opening of the tube into the uterine body, a large tumor was perceived about the size of a walnut; this tumor covered still by a certain thickness of uterine fibres is round, very smooth and largely fluctuating. This cheesy abscess of the uterus in no way communicates, apparently at least, with the Fallopian tube nor with the uterine cavity. The uterine cavity was extensively affected. The principal portion of the mucous lining membrane has disappeared—destroyed by a grey superficial ulceration on its surface, and terminating on a level with the union of the body with the neck. This ulceration of an unequal depth following the points is covered by a greenish yellow muco-purulent fluid, viscid and very coherent, the microscopical examination of which displays only a great number of leucocyte granules accumulated often in a thick mass, and a few hematites. The neck is round and small, the inferior orifice very small, round, but an erosion superficially roseate, granular, about three millimetres in breadth borders it inferiorly. The vaginal mucous membrane is unaltered; hymen imperforate; ovaries healthy. A few tuberculous granulations were found in the kidneys. The interest of this case lies in the fact that simple chronic peritonitis may exist with advanced tubercular disease. The peritoneum must have been attacked at an early period, perhaps in childhood, with an acute inflammation, the effects of which were noticable. The conclusions are, 1st. That simple chronic peritonitis may exist in a tuberculous patient. 2nd. That in a young virgin tuberculosis may localize itself in the genital organs and produce these extensive disorders unknown to the patient. The amenorrhœa

may persist notwithstanding all the causes of irritation existing at a level with the diseased uterus and its appendages.

PUERPERAL CONVULSIONS TREATED BY VENESECTION AND OLEUM TIGLII.

BY J. B. HOWELL, M.D., JARVIS, ONT.

Not having seen anything in the *Canada Lancet* lately on puerperal convulsions, and at the same time having had several cases this summer, and one recently, I will briefly give the symptoms as I found them in the last case, and the *modus operandi* of treatment adopted.

Mrs. S. æt. 21, above the medium height, stout and well built, primipara, complained of slight headache previous to confinement. I was called to attend her on the night of the 15th of January, 1879, at 8 p.m. I made an examination and found the os dilated to about the size of an American dollar. I made another examination at 9 p.m. and found the os well dilated, and before I made an attempt to examine again a convulsion came on, lasting about five minutes. Then followed profound coma with stertorous breathing. I immediately examined the os again and found that the second stage of labor had fairly commenced. Fearing that another convulsion might soon come on, I immediately delivered with instruments, tied and severed the cord, and partially separated the placenta with the view of encouraging hæmorrhage, but to no purpose. I then removed it. By this time she was breathing better; coma and stertor were disappearing, and in fifteen minutes more she was able to speak; said she felt well, and asked what was the matter. I gave her twenty grains of bromide of potassium. I tested the urine and found it loaded with albumen.

In about an hour and a half from the first fit she became restless and tossed about for a few minutes when another convulsion came on, apparently more severe than the first, but lasting about the same length of time. Consciousness did not return after this fit, and the patient fell into a state of profound coma. The convulsions became more frequent and apparently more severe until 5 a.m. when they were nearly constant. I tried the administration of chloroform during a fit, but as the patient did not breathe freely it was a failure. At this time, 5

a.m., I made an opening in the median basilic vein and extracted 3xxiv. of blood, after which the convulsions ceased until 2 p.m. when they again returned, and at 3 p.m. she had had three more when I arrived. I then immediately bled her again from the other arm, taking double the amount of the first bleeding; gave three drops of croton oil combined with ten grains of calomel, and left a small dose of opium to give after it had operated freely. I also ordered five grains of chlorate of potash in solution every hour until my return.

11th. 2 p.m. Visited patient; she has had no fits since; coma nearly gone; pulse rapid; tongue dry; she was able to converse a little. Continued the chlorate of potash, with chicken broth and milk, hourly.

17th. Visited again; found her a little heavy though easily roused. She talked freely, and said that she remembered nothing that had passed since the night she was taken sick. Continued the chlorate of potash, broth, milk and like articles of food.

19th. Saw patient and found her comparatively well. I prescribed iron and quinine, and left the patient in care of the nurse with instructions to send me word if she did not appear to gain. She is now in her usual health.

Correspondence.

To the Editor of the CANADA LANCET.

SIR:—In the *Lancet* of last month is a communication from Dr. Ling, complaining that in my published paper on "Medical Evidence," I did not mention the fact of his having pronounced Wright insane before his trial at St. Thomas. No names were mentioned by me, for it was not my intention to give a history of the trial, but only my own connection with it. The Dr. did not state to me, nor did he in his evidence, as a witness, that he had discovered in Wright the delusions I had mentioned. Had such been the case, it is not likely a witness for the defence would have been so forgetful or negligent as to have omitted the fact, especially seeing that otherwise his evidence was of such a vague nature, that the Court would not accept it as proof of insanity.

His complaint of my not communicating my objections to the defence, is based upon the assumption

tion that medical men are in duty bound to volunteer services where they were not sought for. That may be the Dr.'s mode of procedure, but it is not mine, especially in a case where life and death were not involved. If he knew my opinions why did he not whisper the fact in the ear of the counsel for the defence? I am not responsible for the Dr.'s inferences, which are founded on a "baseless fabric" of imagination.

If, unfortunately, we ever meet on a like occasion, I shall be happy to give Dr. Ling's opinions and evidence that prominence they deserve.

I am, yours truly,

DANIEL CLARK.

Toronto, Jan'y 16, 1879.

Selected Articles.

SOME SURGICAL WRINKLES.

BY JOHN H. PACKARD, M.D.

The first point that I shall discuss is a method of making superficial incisions by which scarring can be avoided. In operations upon exposed parts, such as the face and the hand, it is very desirable that they should be so done as to leave as little scar as possible. The procedure that I have to recommend was first suggested to me by witnessing the effects of an accident, a lady having fallen while carrying a china dish, a piece of which made a long, gaping, incised wound in her hand, the sharp knife-like edge of a fragment having cut through the skin very obliquely. After approximation the wound healed readily, almost without scar. The traces of the injury could scarcely be discovered a few weeks afterwards.

Thinking that this effect was in a great measure due to the direction of the incision through the skin, I tried the experiment in cutting down upon a tumor of the thigh, holding the knife so as to divide the skin obliquely. The wound united perfectly, and after it had healed I actually could not find the line of incision. Since that time I have tested the idea in other cases, with highly satisfactory results. In small, superficial operations, such as the removal of small tumors from the face, it has a cosmetic advantage that at once recommends it without requiring further discussion.

The second "wrinkle" is a suture-needle with the eye near the point, for the purpose of introducing wire sutures. The difficulty in using this material arises principally from the tendency of the wire to "kink" in pulling through the tissues. This is entirely avoided by employing a needle with the eye near the point; the needle being pushed through the lip of the wound, the wire inserted into the eye,

and the needle withdrawn. The needle is essentially the same as that known as Baker Brown's, having been devised by that surgeon for the operation of closing ruptures of the perineum. It may be either set in a handle or held in a needle-carrying forceps,—the latter being the most convenient form for the pocket-case.

An extremely small portion of the wire need be passed through the eye to cause it to be held securely while it follows the needle in its withdrawal from the wound. It can be used in drawing together the flaps of large stumps, as well as in the thin lips of a simple incised wound, the only difference being that the thicker the tissue the longer the needle required. These are made by Mr. Gemrig of different sizes so as to accommodate even the thickest of silver or lead wire used for sutures.

The next idea was obtained from a quack, through a patient who had been under his care, and concerns the manner of introducing the ligature for a fistula in ano. Here let me say that in the treatment of this affection I have found the ligature, and especially the elastic ligature, a very satisfactory substitute for the cutting operation,—being equally efficient and much less painful. Every one knows how difficult it sometimes is, after introducing a probe through a fistula, to make it project from the anus, and how painful the procedure is for the patient. In order to obviate this we first introduce the probe in the ordinary way through the fistula and into the interior of the rectum. The silk ligature is then carried into the bowel on the top of the fore-finger, in the cleft under the free extremity of the nail. Having the ligature thus in the rectum, it is easy to slip the probe alongside of the finger, which is then withdrawn, leaving the ligature; the latter is now twisted by its two ends until it grasps firmly the extremity of the probe, so that in withdrawing the probe the ligature is carried through the sinus and may be tied in the ordinary way. This is easier to carry into effect practically than to describe. It is only needful to see that the end of the probe is bulbous enough to prevent the ligature from readily slipping off. Most of those sold are so.

In using the elastic ligature for the treatment of fistula in ano, it usually becomes necessary to tighten it from time to time. It does not tie easily, and the knot is bulky. In order to perform this duty quickly, securely, and without causing unnecessary pain to the patient, I simply cross the two ends and tie an ordinary ligature around them. Either this tying or the subsequent tightening of the ligature can be done without the aid of an assistant, by making two small loops of wire and fastening them to the ends of the ligature. Having the thread between one thumb and forefinger ready to tie around the ligature when it is drawn tight, the little finger of each hand is inserted into the loops or rings of wire, by which any desired traction can be made upon the ligature, while the other fingers of both

hands are free to tie the silk or hempen thread. This I have found a very useful expedient.

Another point of interest and useful in its application is the "dry suture," for closing large wounds, such as are made sometimes, for example, in removal of the breast. It is an old idea, and one with which many of you are doubtless familiar. Two sheets of the most tenacious of all plasters, Seabury & Johnson's porous plaster, two and a half inches wide and of the length of the wound, are required. These perforated strips are placed one on each side of the wound, and parallel with it. Then with an eyed probe the surgeon can lace the two together over the wound, by carrying a silk ligature or a slender lacing across alternately from the second row of perforations in each sheet, so that the wound is drawn together without any tension upon its edges, but by taking a very wide hold on the surrounding skin. It is a very important thing to bring the wound together in this way, especially since it is well known that as the edges swell in the course of a few days there is a tendency to the cutting through of sutures applied in the ordinary method. The same expedient is useful in treating large chronic ulcers of the leg, where it is desired to reduce a wide granulating surface; and a number of other applications will suggest themselves.*

I would further recommend the use of reflected light, by means of the ordinary head-mirror of laryngoscopists, in examining other portions of the body, such as the ear, rectum, or the vagina. It is sometimes difficult to move patients; they are heavy, or are so ill that they cannot be placed in a convenient position for examination; the light may be inconveniently located, or the source of light may be a window that may expose the patient to curious neighbors; in all these cases the reflected light from the head-mirror enables us to obviate the difficulty, and to direct the light as we desire, without needlessly exposing the patient. Moreover, it obviates the necessity of the surgeon dodging the shadow of his own head.

Finally, in regard to the first insensibility from ether, I would say a few words, although some of you are already acquainted with its advantages. It is a matter of very great importance, and I beg all of the members to try it for themselves. For the short operations of minor surgery, and the reduction of dislocations or opening of abscesses, it is extremely useful and of every-day application. Such a patient steps into your office, and you wish to operate without causing him pain or incapacitating him from attending to his business for the remainder of the day. Let him lie down upon the sofa, and take the ether-inhaler, or a sponge wet with ether, in his own hand, directing him to hold the other arm up

in the air. After breathing the ether for a few minutes, the arm will drop, and you will have from thirty to fifty seconds of unconsciousness in which to operate. The sponge is removed, and the patient is ready to go about his business. It gives rise to no headache, nausea, or other unpleasant symptom, and is particularly useful in children. The chief source of disappointment is in not recognizing the right moment, for if this is allowed to pass, unconsciousness will not again occur until full etherization. The first insensibility is sure to come. When the arm wavers, be ready, and as soon as it drops perform the operation; there will be no pain felt.—*Medical Times.*

THE TREATMENT OF ACUTE ARTICULAR RHEUMATISM.

BY ALFRED STILLE, M.D., PHILADELPHIA.

At the outset of this part of my discourse, I desire to lay great stress upon the statement that *the treatment of simple acute articular rheumatism may be abandoned to palliatives and nature.* Apart from complications, such cases nearly always get well under rest and good nursing. Try and disabuse yourselves of the idea that their cure is dependent upon medicines alone; to help nature is often the best we can do. No treatment was ever invented which stopped a case of acute articular rheumatism. It cannot be accomplished by bleeding, or sweating, or purging, by nitre, by tartar emetic, by guaiacum, by alkalies, by salines, by salicylic acid, or by anything else. The physician can palliate pain and perhaps shorten the attack; can perhaps prevent or control complications, and stiffness in the joints, but he cannot arrest the disease. Where rest, proper diet, and warmth are enjoyed, most cases will get well just as soon without as with the use of other remedies. Dr. Austin Flint, of New York, in support of this statement, subjected some patients, a number of years ago, to the expectant treatment, and found that they made just as rapid and just as complete recoveries as those cases under active medication.

Purgatives have been used in all ages in the treatment of this disease, because it was considered to be a fever. We are all too apt to put our necks into the yoke of a theory. In olden times they thought that the system ought to be reduced. Before the time of purgatives depletion was employed. This mode of treatment I will not even discuss. There is no evidence that I know of in favor of purgatives. There are very good reasons, indeed, why they should not be used: (1) because they cannot possibly cure; (2) because they oblige the patient to make painful movements; and (3) because they expose him to the danger of cold.

A celebrated London physician had all his

* In recommending the perforated plaster for the closure of wounds I am aware that the dry suture has been used for years. But the tenacity of this plaster, and the convenient perforations, make it particularly applicable to this purpose, and allow of its being done a great deal more easily than it ever has been before.

patients packed in blankets, and did not allow them to move a finger. This was going to the other extreme.

There are certain cases in which purgatives are alleged to be of use, viz., those in which the bowels are constipated, and there is a bitter taste in the mouth. I have never seen such cases except in habitual drunkards, and in their case a purgative does more harm than allowing the effete matter to remain in the system.

Opium was once vaunted as a specific, and it was claimed that it diminished the complications of the disease. Dr. Corrigan, of Dublin said that large doses of opium were well borne—say from four to twelve grains in the course of the twenty-four hours, or sometimes he advised giving as much as one grain every hour. Opium so employed does not produce narcotism, and does not constipate the bowels. More recent experience has shown that opium, of all remedies, is the most likely to cause complications in the heart.

Some have recommended colchicum, arguing that because it does good in gout, it must therefore do good in rheumatism. But colchicum is not a remedy for rheumatism.

Many years ago it was very much the custom to administer large doses of powdered Peruvian bark. The rationale of these large doses was founded upon their sedative effect. Haygarth, Morton, Heberden, and Fothergill were the first to employ this method. Later still, a number of noted French physicians, among them Briquet, Andral, Moneret, and Legroux, renewed the use of this medicine in the form of quinia, but gave it in smaller doses, seeking only its tonic effect, from five to fifteen grains being administered in the course of twenty-four hours, and then it was continued in smaller doses.

Still more recently, quinia has taken the place of Peruvian bark and the old plan of administering large doses has been resumed. From thirty to one hundred grains have been administered in the course of twenty-four hours. Never was there a more profligate waste of a precious medicine. Even the physicians who so used it, were obliged to acknowledge that it only did good in subacute and mild cases.

I believe that it has also been fashionable in the so-called cases of *hyperpyrexia*, to immerse the patient in a bath varying in temperature from sixty to ninety-eight degrees Fahr. Although patients thus treated sometimes recovered, they also sometimes perished from congestion of the lungs and brain.

Among cardiac and nervous sedatives, digitalis, veratrum album and viride, veratria and aconite, have at one time or another been employed indiscriminately. Such treatment, of course, has only proven itself to be a monument of rashness to those who employed it. Such sedatives may reduce

the pulse, but do not shorten the disease. Indeed, if it is possible to prove the absurdity of anything more clearly by mere enumeration of these medicines as cures for rheumatism, I do not know of it. Do digitalis and aconite act in the same manner? This is just one expression of the folly which has surrounded the use of digitalis at its first discovery. Every affection of the heart was treated by digitalis.

Within the last few years new remedies have been proclaimed in salicylic acid and its sodium salt. I confess that I possess no personal knowledge of their use in this disease, for I was at first dissuaded from employing them by a prejudice against the grounds on which they were recommended, and more recently by the contradictory judgments respecting them, and the unquestionable mischief they have sometimes caused. According to the eulogists, the arrest of the disease is, secured by them within four or five days, whether the attack be febrile or not; its mortality is diminished; relapses do not occur if the medicine is used until full convalescence; it is without influence on heart complications already existing, but it tends to prevent them as well as other serious inflammations. One of these gentlemen assures us, that to say it far excels any other method of treatment would be to give it but scanty praise. But, upon the other hand, it is accused of producing disorders, and even grave accidents, in almost all the functions of the economy. In some cases it has caused ringing in the ears, or deafness, or a rapid pulse, or an excessively high temperature, panting respiration, profuse perspiration, albuminuria, delirium, and imminent collapse. In one published case, this antipyretic did not lower, but, on the contrary, seemed actually to raise the temperature so high that immediately after death it stood at 111° F. Many, very many, analogous cases have been published. I repeat, therefore, that I am personally unacquainted with the effects of this medicine in acute articular rheumatism, and that I have not, thus far, been tempted to employ it.

BLISTERS AND ALKALIES THE MOST RELIABLE REMEDIES.

It may be difficult to see the connection between these two classes of remedies in their power to influence the course of acute articular rheumatism, and yet it is certain that they do so influence it, and in the same way, *i.e.* by altering the condition of the blood from acid to alkaline. If you ask me to explain to you how blisters act in this way, I am obliged to confess my ignorance. To produce this effect, they must be applied over all the affected joints. Experience, if not science, has decided conclusively in their favor. They do produce a cessation of the local symptoms, render the urine alkaline, and diminish the fibrin in the blood.

This brings us to a consideration of the use of

alkalies. Alkalies neutralize the acids, act as diuretics, and eliminate the *materies morbi*. Alone and in small doses, they are unable to cure; but when given in very large doses, their effects are marvellous; the pulse falls, the urine is increased in quantity and becomes alkaline, and the inflammation subsides. The symptoms of the disease are moderated, the duration of the attack is shortened, and the cardiac complications are prevented.

The dose of the alkalies must be increased until the acid secretions are neutralized. A very good combination of these remedies is the following.

R. Sodæ bicarb	3 iss.
Potas. acetatis	3 ss.
Acid. cit	f. 3 ss.
Aquæ	f. 3 ij.

S.—This dose should be repeated every three or four hours until the urine becomes alkaline. On the subsidence of the active symptoms, two grains of quinia may be added, with advantage, to each dose. The alkalies must be gradually discontinued, but the quinia continued.

The diet should consist of beef-tea or broth, with bread and milk; no solid food should be allowed. Woolen cloths moistened with alkaline solutions may with advantage be applied to the affected joints. To these laudanum may be added for its anodyne effect.

The patient must be sedulously protected from vicissitudes of temperature, and lie in bed between blankets.

The alkaline treatment relieves the pain, abates the fever, and saves the heart by lessening the amount of fibrin in the blood.

A long time ago Dr. Owen Rees, of London, introduced the use of lemon-juice. This remedy was thought to convert uric acid into urea, and so to help elimination. Though the treatment is practically right, the theory of it is wrong. Lemon-juice does good in mild cases, but cannot be relied upon in severe attacks.

During the febrile stage of acute articular rheumatism the diet should consist mainly of farinaceous and mucilaginous preparations, with lemonade and carbonic acid water as a drink. The cloths applied to the joints should be changed when they become saturated with sweat, and in changing them the patient should be protected from the air.

The sweating may be controlled by small doses of atropia, from one-sixth to one-thirteenth of a grain. To prevent subsequent stiffness, the joints should be bathed with warm oil and chloroform, and wrapped in flannel cloths. In the proper season this condition is very well treated by sea-bathing. There is no specific plan of treatment in acute articular rheumatism. The treatment must vary according to the intensity of the inflammation and the peculiarities of the patient.—*Med. Record*, Jan. 18, '79.

MICROSCOPY AS AN AID TO MEDICAL DIAGNOSIS.

BY DR. C. HEINTZMAN, NEW YORK.

In order to understand the urinary sediment it was necessary to be familiar with the anatomy of the kidney, and the anatomy of the kidney could not be understood without familiarity with its entire histology. When that was mastered the study of the urine could be commenced.

The anatomy of the kidney was first considered, and a detailed description given of the structure of the cortical and the pyramidal substance.

There were mainly three kinds of inflammatory processes in the kidney, formerly considered under the general term Bright's disease. He thought, however, that such terms as Bright's disease and Pott's disease were general terms, and should not be used by scientific men.

The inflammatory processes in the kidney were mainly of three kinds: 1. Catarrhal; 2. A more severe form, or croupous; and 3. A still more severe variety, suppurative nephritis.

The catarrhal process consisted essentially in a serous exudation, in which there was desquamation of a certain amount of epithelium that could be seen in the urine. That primary condition could give rise to new connective tissue formed from epithelium, and at last terminate in the small granular kidney. If, therefore, we found in the urine a varying amount of albumen with epithelia of the kidney, recognized by their size, we could determine positively that an inflammatory process of a milder character was going on in the organ; in other words, that the patient was suffering from catarrhal nephritis.

In another series of cases there was present in the urine a varying amount of albumen and tube-casts.

Dr. Heitzman believed that the tube-casts consisted of protein substance, or a modified form of fibrinous or albuminous material. Hence there was no good reason for omitting the term *croupous nephritis*. He then referred to the various theories which had been given regarding the formation of tube-casts: 1. That an exudation took place in the tubules, coagulation occurred, and casts were formed; 2. That the epithelium lining the tubules was transformed into casts; and 3. That the casts were produced by the coagulation of material secreted by the epithelia themselves. The latter was the theory which he adopted.

A brief description of the various kinds of epithelium found in the uriniferous tubules was then given: 1. The epithelium of the convoluted tubules, which he thought were separated by a cement substance; 2. The flat epithelium of the loops of Henle; and 3. The cylindrical epithelium in the straight tubules.

In sections of kidney, which were the seat of croupous nephritis, cast material could be seen in the tubules; and of casts there were five varieties:

1. Hyaline casts; 2. Epithelial casts; 3. Blood casts; 4. Fatty casts; and 5. Waxy casts.

There might be a sixth variety, or granular casts.

In ordinary acute croupous nephritis there were found in the urine hyaline and epithelial casts; but if the disease was very severe there might be blood casts.

In the chronic stage of the disease there were found granular casts; and if fat globules were present it was indicative of fatty degeneration of the kidney. Lastly, if waxy casts were found in the urine it was evidence that we had to deal with a waxy degeneration of the kidney.

Dr. Heitzman believed that whenever casts appeared in the urine they indicated severe disease of the kidney, namely, croupous nephritis.

A recent German writer had advanced the opinion that mere hyperæmia of the kidney could give rise to casts, but he doubted the correctness of that opinion.

Not only did casts indicate the stage and the nature of the disease, but they also indicated the portion of the kidney which was the seat of the disease. In the mildest cases the casts were from the loop tubules and the convoluted tubules of the second order. If the number of casts from the convoluted tubules was considerable, it was known that the cortical substance was chiefly invaded. The mere size of the casts, besides the number and the character of the cast, was indicative of the disease called croupous nephritis. We very often met with casts from the convoluted tubules with a stump-like attachment, which indicated that they had also been formed in part in the straight tubules. That was a form of cast which he had not seen described, and indicated the exact situation of the inflammatory process. Based upon these principles, he had been able to make a diagnosis by examination of the urine alone, and had seen his diagnosis proved true by the subsequent history of the cases. As an illustration, the urine of a boy, six years of age, was brought to him for examination. He had suffered from a very slight attack of diphtheria. Three varieties of casts were found in the urine, and the case was set down as one of severe croupous nephritis. The boy died three days after in a convulsion.

There was possibility of recovery from croupous nephritis under the following circumstances: 1. When it occurred in connection with scarlet fever; and 2. when developed in connection with pregnancy, or, as occasionally happened, after delivery. In the first instance recovery was due mainly to the recuperative power possessed by children, and in the second class of cases it was because only one kidney, as a rule was affected. Perfect recovery in both instances was possible.

With reference to *pus corpuscles* he was able to tell where they came from only when they were mixed with epithelia, which indicated the seat of the disease. If pus corpuscles with flat epithelia were found in the urine it was evidence that suppuration existed in the bladder. If the caudate epithelia were present with pus corpuscles it was evidence that the pelvis of the kidney was the seat of the suppurative process. If small epithelial cells were found with the pus corpuscles it was evidence that the inflammatory action was in the kidney itself. It was only in acute cystitis that the flat epithelial cells with pus corpuscles were found. In chronic cystitis the flat epithelia were absent, and black pigment was found in the pus corpuscles. Again, if pus corpuscles with epithelia from the kidney were found in the urine it was evidence that a more or less dangerous suppurative process existed in the kidney. If hematoidine crystals were found in the urine it was evidence of a chronic morbid process, and if associated with pus corpuscles, of a chronic suppurative process.

THE DIAGNOSIS OF LUNG DISEASE.

The chief elements met in the sputa were mucous corpuscles and pus corpuscles. The question arose, What was the difference between a mucous corpuscle and a pus corpuscle? The answer was, that the mucous corpuscles were nothing but the protoplasm of the epithelial cells themselves, and were pale and *finely* granular bodies, while the pus corpuscles were *coarsely* granular bodies.

Dr. Heitzman believed that Cohnheim was mistaken when he stated that all pus corpuscles were migrated white blood corpuscles, for the formation of pus corpuscles could be traced to the firmer tissue itself. No one would deny that a certain number of pus corpuscles were migrated white blood corpuscles, but he did not believe that all of them were produced in that manner.

The lungs normally contained a certain amount of pigment, therefore when pus-cells were found in the sputa contained pigment granules, it was an indication as to where the pus-cells came from. The presence of elastic fibres in the sputa indicated that there was positive destruction of lung-tissue. He might not be able to say what had destroyed the lung tissue, but it could be said with great certainty, if with the fibres there were found certain protoplasmic bodies, that the destruction was due to the formation of a cavity.

Reference was then made to cases in which he had been able to make a diagnosis of serious lung disease by examination of sputa before any evidence of such disease was given by physical signs.

THE DIAGNOSIS OF TUMORS.

There was no doubt the science of microscopy had advanced so far that we were able to tell

positively what kind of a tumor we had to deal with. If a few points were kept in mind we could easily determine whether we had to deal with a benign or with a malignant growth. The key to diagnosis was chiefly in the basis substance, whether fibrous, myxomatous, cartilaginous, or bony. The more of the basis substance present the more certain was the tumor benign; the less the basis substance the surer was the tumor malignant. Malignant tumors were of two kinds: 1. The kind belonging altogether to the connective tissue series, and termed sarcoma; and 2, the kind belonging to epithelial formations, and termed cancer. Further, if we saw slight basis substance without epithelial elements, and without alveolar arrangement, we could say that it was a sarcoma; while if we saw epithelia arranged in alveoli, without respect to size or shape, we made the diagnosis of cancer. In the latter case, also, a great deal could always be determined by examination of the connective tissue outside of the epithelium. The more abundant the connective tissue about the epithelial nests the less malignant was the cancer, while the more numerous the epithelia were, and the less abundant the connective tissue, the more certain we were that the cancer was a malignant one.

Again, there were present in the connective tissue itself a varying number of peculiar shining globular elements which, by recent examiners, had been considered as the product of a kind of inflammatory reaction from irritation of the epithelium. The more crowded those corpuscles were, the worse the cancerous tumor. If we wished to know whether or not the tumor had been thoroughly extirpated, it should be examined about its boundary. If the connective tissue was found provided with only a small number of inflammatory elements so-called, we might be sure that the cancer would return within a very short period of time.

COLORLESS BLOOD-CORPUSCLES AND PROTOPLASM.

Under this head the lecturer referred to the discovery which he made five years ago, regarding the anatomy of protoplasm, and its presentation before the Society three and two years ago. (See MEDICAL RECORD, Vol. XI., p. 322, and Vol. XII., p. 94.) He then claimed that protoplasm of any description invariably contained a net-work of threads and granules, that held in its meshes a fluid, and that the threads and the granules constituted the living matter. To-day, more than a dozen of the best microscopists abroad had accepted his discovery, although it had not been recognized in this country. That the reticulum was present, no one had a right to doubt; but that the threads and granules were living matter had as yet not been acknowledged. That it was living matter he had to prove, which he felt himself able to do by the recognition of two well-established facts.

The first property attributed to living matter was

motion; and the second, *capacity for reproduction of its kind*. As evidence that this matter was living, was the motion which could be seen in it, and it was enough to establish its reproductive power to know that the granules increased in size and number during the inflammatory process. Transferring the idea to the study of the human body, Dr. Heitzman reasoned that these corpuscles should contain more living matter in the healthy and strong individual than in the broken-down and scrofulous person. Acting upon that supposition, he began, three years ago, to study pus-corpuscles in the urine in connection with clinical histories, and reached the conclusion that the constitution of the person from whom they came could be determined in that manner. Having settled the question that pus-corpuscles from a healthy person contained an abundance of living matter, an abundance of granules, while those from a debilitated person contained granules which were very small and a very marked net-work, it occurred to him that perhaps by examination of the colorless blood-corpuscles he would be able to tell directly what the constitution of the individual was from whom the blood was taken. So it was, and he had found that when the colorless blood-corpuscles, examined with moderately high power (800 to 1,000 diameters), were found to contain an abundance of granules, it was evidence of a first-class constitution; on the other hand, if only fine granules were seen, and the entire body of the corpuscle was pale, it was evidence of a poor constitution. He had very often noticed that the number of white blood-corpuscles was considerably increased after a single sleepless night, so much so, that it might be determined whether a man had been kept from his rest or not, by examination of his blood. It could also be determined whether a man was to have acute diseases, or whether he was to suffer from the slow processes of disease incident to a strumous diathesis.

These facts being determined, they might exert a very great influence upon the entire question of life assurance. Not only that, but they might exert an important influence upon the question of marriage. To know something of the general condition of our patient was very important. If that could be determined by an examination of a drop of his blood, we had learned much with regard to his future welfare, and a new field was opened worthy of the investigation and study of every physician.—*Medical Record, January, 1879.*

TREATMENT OF TYPHOID FEVER.

In a lecture by Dr. Alonzo Clark, reported in the N. Y. *Med. Record*, he remarks: I may safely say to you that a case of typhoid fever of average severity needs no medicine except for the relief of

certain symptoms, such as sleeplessness, perhaps a little urgency in the diarrhœa, sensation of burning on the surface of the body, etc. There are a great many cases of typhoid fever which need no treatment whatever by way of drugs, but everything by way of management of the case. Still, it does happen in many of these cases that some one of the symptoms requires treatment. The diarrhœa, for example, in many cases, requires restraint.

Diarrhœa does not occur in every case of typhoid fever in this country; perhaps it does not occur in two-thirds of the cases. The astringent I have referred to so frequently is found to answer a very good purpose. It consists of:

R. Bismuth. subnit	. . . . .	dr. i.
Morphiæ sulph.	. . . . .	gr. i.
M. et div. in chart.	. . . . .	No. xii.
One to four a day.		

The common astringents tr. kino and tr. catechu may be employed, and the decoction of blackberry root is sometimes very serviceable. In some cases it requires the moderate by free use of opium to restrain the diarrhœa.

There is always a *cough* in typhoid fever, but as it is not important in the average case, I have not mentioned it until now. There is slight bronchial irritation, which appears early in the disease, and continues usually until the period of imperfect anæsthesia is reached, then it may cease. The material raised is commonly a glairy mucus, but in some cases the slight bronchitis becomes a catarrh, and will require treatment. It will need the same treatment as bronchitis occurring under any other circumstances, except that the tonic expectorants will be most likely to do good. Perhaps one of the best that can be used is the *Co. Tr. of Benzoin*, in doses of ten drops on sugar once in three or four hours. A very good combination is the tincture of the balsam of tolu and the mistura guaiaci.

R. Mist. guaiaci	. . . . .	dr. j. to $\frac{3}{4}$ ss.
Tr. balsam tolu	. . . . .	gtts. vj. to x.
M.		

This can be repeated every two, three, or four hours. Sometimes the inhalation of the vapors of warm water seems to be required for one or two hours each day.

Restlessness is one of the prominent features of the disease, and that will very frequently be entirely quieted by sponging the surface of the body with warm or cold water. If the temperature is high cold water is better than warm; and in some cases a Dover's powder will be required.

The *temperature of the body* will require your attention. In many cases of typhoid fever it does not rise to a dangerous point; in a few cases it does. You will see the greater number of cases go through the entire course of the disease without

the temperature at any time reaching 105° F. In a case of average severity the maximum temperature is about 104° F.; in occasional cases it reaches 106° F. or 107° F., and then you will either give quinine in pretty decided doses or use cold water for its reduction. If the patient is a young person, the cold bath is the most convenient means of reducing the temperature, and certainly the most efficacious. The temperature of the bath should be only ten degrees below the temperature of the body when the patient is first put into it. If the temperature of the body be 102° F., the patient may be placed in a bath having a temperature of 95° F.; then some of the warm water can be removed, and be replaced by cold water until the bath has been reduced to 80° F. If the patient is permitted to remain in the bath twenty minutes, the temperature is usually reduced 1, 2, 3, 4 or 5 degrees.

He is then removed from the bath, put back into bed, and it will be several hours, usually, before the temperature will rise as high as it was before using the bath. When it rises, another bath is to be given, and in that manner you will go on repeating the bath as often as may be necessary to keep the temperature below the point of danger.

The son of one of the Professors in the college has within the present season had typhoid fever. In his case the bath was used about five times a day for several days, and always with the result of reducing the temperature and affording great relief to the patient.

For the hemorrhage from the bowels there is but little that can be done, unless, in addition to absolute rest, the fluid extract of ergot be administered.

For the perforation of the bowels, I have some faith in the opium treatment. As I told you, I feel confident that I saved one doctor's life by the narcotizing influence of opium, and there is no objection in typhoid fever to the administration of this drug.

Now we come to the two essentials in the treatment of this disease. I am in the habit of repeating the old proverb, "Stuff a cold, and starve a fever," and then add that we stuff them both now. First, then, the administration, steadily and perseveringly, of such food as can be absorbed by the stomach. We cannot talk much of digestion; the stomach is in a diseased condition, and cannot digest well, consequently everything solid in the way of food is out of the question. Most of these patients dispose of milk pretty well. For all those who can dispose of it, milk is the best food that can be used. For those who cannot use it, you will be obliged to do the best you can with beef-tea, raw egg beaten up with water, and made of such consistency that it can be taken with a spoon; and the expressed juice of beef. The beef-tea does not contain a great deal of nourishment, and when it can be used, milk is a much better article of food.

The expressed juice of beef answers very well, and can be obtained by cooking a piece of steak so as just to crust the two surfaces, and then cutting it into pieces and squeezing the juice out with a lemon-squeezer. The broths are given rather as diluted food in the early part of the disease, when it is supposed that the patient should not take much nourishment, but as the disease advances, the food should be more and more sustaining. In cases in which the stomach fails to retain the food, nutritive enemata should be employed. You will remember that the disease which produces the diarrhoea, is in the small intestine, not in the large.

The other essential of which I wish to speak is fresh air, but I will reserve that for the opening of the next lecture.

PLEURISY WITH EFFUSION IN AN INFANT FOUR MONTHS OLD; PARACENTESIS; RECOVERY.

Under the care of Dr. Cayley.

George W—, aged four months was taken as an out-patient to the hospital on October 22nd, 1878. He was a well-nourished, well-grown infant, fed entirely at the breast. His mother stated that he had always been healthy till the present attack. A week before, the child began to suffer from cough and difficulty of breathing, which soon became very great. Medical advice was obtained, and the mother was told that he was suffering from congestion of the lungs. She could assign no exciting cause for the attack, but said that immediately before, a scabby eruption, which had covered the child's head for some time, disappeared. The child continuing to get worse in spite of treatment, she took him to the hospital. He was then suffering extreme dyspnoea. The respirations were excessively rapid. He kept tossing his arms about and throwing his head back. The extraneous muscles of respiration were brought into active play; but there was no laryngeal stridor, or inspiratory retraction of the ribs, and the face was not cyanosed. There was a frequent short abortive cough. On examining the chest, absolute dullness was found over the whole of the left lung, with absence of breath-sounds. The heart was displaced, and the apex could be felt beating to the right of the sternum. The breath-sounds on the right were much exaggerated. Dr. Cayley at once performed paracentesis. The trocar and canula were introduced in a line with the angle of the scapula, and eight fluid ounces of very turbid serum, which solidified on boiling, were drawn off by a bell-jar aspirator. The mother then took the child home.

On Oct. 25th the child was brought again. The dyspnoea had been at once relieved by the operation, and had not returned. The breath-sounds were audible quite down to the base of the left

lung, but the percussion-note over the back was deficient. On Oct. 29th the child appeared quite well, with the exception of a slight cough; the physical signs remained unaltered. On Nov. 5th, the child still had a cough, but was otherwise quite well. The scalp was again covered with a scabby eczematous eruption. The percussion resonance at the left base was much impaired, and the breathing somewhat tubular.

Remarks by Dr. Cayley.—I believe this to be youngest case of pleural effusion on record. Several cases of empyema and simple effusion in children between the ages of twelve months and two years have been published, and I now have in the hospital a case of empyema, which is being treated with a drainage-tube, in a child one year and ten months old. It is of course possible that cases may sometimes occur without being recognized. At the North-Eastern Hospital, however, where it is the practice to auscultate all infants, suffering from dyspnoea, no other case under the age of twelve months has yet been met with.—*The Lancet.*

VARIETIES OF PULMONARY PHTHISIS.

EXTRACTS FROM A LECTURE DELIVERED IN BELLEVUE HOSPITAL MEDICAL COLLEGE.

BY ANDREW CLARK, F. R. C. P., LONDON.

(Continued from page 142.)

Now, in the second classification, we have a caseous pneumonic phthisis. The history of this form of phthisis is almost the reverse of that of tubercular phthisis. In tubercular phthisis the constitutional symptoms are profound, while the local symptoms are comparatively few. In the cases I am now describing we have an abundance of local symptoms. By physical examination perhaps one-quarter, one-third or one-half of an upper lobe of a lung may be found to be uniformly solid. You will have dullness and tubular breathing, which may be accompanied or not by crackling. You may have bronchophony, but the constitutional symptoms are often few. The patient looks fair, has a bright eye, is well nourished, and perhaps slaps his chest and says, "But for this cough I would be quite well." Perhaps the disease has come on insidiously. Perhaps by inflammation not so severe as croupous pneumonia, and the case itself runs for an indefinite time until a certain change takes place which brings it within the pale of serious cases of phthisis.

Suppose, then, we have a case of pneumonic phthisis with unbroken consolidation of the lung or only a few small cavities. The patient is tolerably well, engages in his work, complains comparatively little of constitutional symptoms. By and by the caseous pneumonia breaks up into large

cavities, and sooner or later the opposite lung may become affected either by the deposit of tubercles or by the formation of little patches of lobular pneumonia.

Here again the subject is full of complexities and we are in a little difficulty. Sometimes cases of caseous pneumonic phthisis are slow, subacute, almost chronic. But there is a certain section of these cases which is extremely rapid. There are those cases in which the fever rises and the deposit in the upper part of the lung breaks down rapidly, and within four, five or six weeks the patient dies with all the symptoms of phthisis. These may be called cases of acute caseous pneumonic phthisis, and answers to the true galloping consumption of our forefathers.

Now, passing from this caseous pneumonic phthisis, I will make the following additional statement: The usual rule with tubercular phthisis is death. I do not say there are no exceptions to this; perhaps cases of tubercular phthisis may get better, but they are few. It is in cases of pneumonic phthisis no doubt that the greatest number of recoveries take place, and they take place in one of several ways. Sometimes the exuded caseous pneumonic stuff undergoes fatty metamorphosis and is really absorbed. In other cases the caseous matter, not being quite melted and absorbed, a kind of fibroid change takes place in the lung. It gets hardened, perhaps the bronchial tubes are a little dilated, and the whole affair settles down into a hardened mass. Sometimes these cases of caseous pneumonic phthisis, whilst destruction is going on, yet develop secondary fibroid change, which does the same for these cases as for those of old tuberculous phthisis.

I have said that occasional cases of tubercular phthisis progress slowly, and in proportion to the amount of fibroid degeneration. So it is in caseous pneumonic phthisis; for, if it excites a secondary fibroid degeneration the progress is exceedingly slow.

Now we come to speak of the cases which I have classified as fibroid phthisis. The chief clinical characters of fibroid phthisis are these: First, it is, as a rule, a-febrile. The pulse is quiet, and the general health is but little disturbed. The second point is, that usually, not invariably, there is, just as in the case of croupous pneumonia, a history of some inflammation. It may be a pleurisy, very often it is so; it may be a pneumonia, which has been unabsorbed and converted into fibroid mass, or it may be an irreducible recurring bronchitis which has caused the development of fibroid tissue; and lastly, but rarely, it may be due to some constitutional disease, such as syphilis or cancer. But the main point is, that while it has such a history it is almost always unilateral, while tubercular phthisis is almost invariably bilateral sooner or later. Pneumonic phthisis may be or it

may not be unilateral. Fibroid phthisis is in ninety-nine cases out of a hundred unilateral. The local signs of fibroid phthisis are extreme contraction, with pronounced friction sounds and displacement of the organs. With these few points I will narrate the history of one case of fibroid phthisis which will enable you to understand better what what you are to expect in these cases than you would from a mere description.

Here is an illustration of an interesting lung which was converted into a fibroid mass, was surrounded by an enormous thickening of pleura, and had upon its summit about an inch of fat, an appearance which I have never seen before or since, although I have examined over four thousand bodies. The subject from whom the lung was taken was my first patient in the London Hospital some three-and-twenty years ago. When he came to me he was a stout man, about fifteen or sixteen stone in weight, and complained of cough and spitting of blood. At that time I did not know much about lung diseases. I examined the man with the utmost care and found nothing. But from the history of the case I thought perhaps he might be suffering from some internal growth, such as aneurism, or something of that kind. I afterwards learned that he had been under the charge of the surgeon at the other end of the hospital for a fractured rib, from which he had recovered. I took an interest in the man, but months passed before I discovered anything. The first thing which I noticed was a little crepitation, and the next a little contraction of the right side. By and by he began to have violent paroxysms of cough, which often ended in retching and discharge of foetid muco-pus from the lung. Then more and more progressively the right side of the chest contracted; the heart was now pulled from the left to the right side; next he began to fail, and a bluish condition of the skin made its appearance. I watched him, and from year to year I found the symptoms steadily increasing. It was, perhaps, at the end of ten years when I exhibited him to my colleagues. He complained that he had a paroxysmal cough, which ended in vomiting and the expulsion of muco-pus, which was sometimes foetid and sometimes not. He had severe pain in the right side, and that beyond being a little weak and exhausted by the cough he had nothing else to complain of. The physical signs were these: The right arm was slightly swollen, and the fingers were slightly swollen and bluish. The heart was drawn considerably to the right side; there was dullness over the right side of the chest; there was bronchophony; there was an increase of vocal resonance, and a metallic crepitation accompanied them.

When I exhibited him to my colleagues, they were all of opinion that he had some growth in the right lung. Well, he went on, the heart becom-

ing more and more drawn to the right side, and finally his skin began to get dry, and he became the subject of albuminuria.

I may here mention that this is another clinical fact connected with fibrous phthisis. At last the poor man became exhausted, and died.

At post-mortem examination the left lung was found perfectly healthy; I may say, every organ of the body was sufficiently healthy to require no notice, except, perhaps, the kidneys, which were slightly congested, and slightly harder than normal. The right lung contained nothing whatever which by any possibility could be called tubercle. It was clear, therefore, that the fractured rib had set up in the pleura a fibroid change which had invaded the lung, caused its contraction, and ultimately gave rise to the symptoms which ended in his death.

With your permission, I will mention just one other case. It is a case which was brought to me by Dr. Pollock, of the Charing-Cross Hospital. This patient sprung from a bronchitic family, and had repeated attacks of bronchitis and severe attacks of pleurisy. When the patient was brought to me there was complete dullness, diminished tactile and vocal fremitus, loud bronchial breathing, bronchophony, and a metallic character to the resonance. His symptoms were paroxysmal cough, often ending in vomiting, and dyspnoea, but no fever.

This case was examined by several physicians, and seven years ago was reported before the Clinical Society of London as a case of tubercular phthisis. Not long ago he died, evidently from an attack of acute bronchitis, brought on from exposure to cold; but before death there was a small quantity of albumen in the urine.

When examined after death these appearances were found: The right lung was perfectly solid; through it ran dilated bronchial tubes, and in the solid portion there were several ulcerations producing cavities.

I have now in my wards, in the London Hospital, three cases, in different degrees of development, which illustrate one of the modes in which fibroid phthisis arises.

The first is the case of a man named Tenny. He is a thin, pale and delicate man. He is liable to cough with expectoration; but he says he is pretty well, except that he is very delicate. The remarkable feature about the man is, that he has scarcely any lung to breathe by.

His chest seems contracted, and he presents an appearance such as is seen in advanced phthisis; but it is not a case of phthisis at all. The more careful examination you make the more sure you are that you are dealing with a man who has semi-solid, contracted lungs, with but little space left for breathing, and, perhaps, slightly dilated bronchial tubes, which hold a small amount of secretion.

But there is no evidence of destruction of lung-tissue, and he has had a kind of interstitial pneumonia for many years.

I have watched him from the beginning of the symptoms, which are like those in the other cases described.

The second case is that of a man called Douglas. He is in the position of having a contracted left lung, with crepitation all over it; bronchial breathing and bronchophony; but otherwise he is in tolerable good health. He, too, has the history of the third case.

The third case is that of a man who has been under observation for some time, but whose name I forget. But he has an irreducible fibrous pleurisy. He declares that he is perfectly well, and it is only by the greatest strategy and ingenuity that we are able to keep him in our wards. It astonishes him that we should be so anxious to have him remain with us. But we are very desirous that he should do so, in order that he may be utilized for purposes of our common instruction.

But the moment the hand is placed on the chest you feel a friction motion, and, over almost the entire chest, you can hear the to-and-fro friction sound. This is an example of the beginning of these cases. Tenny's difficulty began in this way. They come into the hospital with some pain in the side, with little or no effusion in pleural cavity; probably an effusion has been present at some time, and they get apparently well; but the to-and-fro friction sound remains in some cases.

In none of these cases have I been able to render any therapeutical service whatever.

In the last case it will be my endeavor to keep the patient in the hospital, so that I can trace the clinical history through its entire course.

I will just say, however, with reference to these illustrations, that, if you will cast your eye backward, I think you cannot fail to see, first, that there is sufficient ground for pathological distinction; and, second, if I could reproduce in your minds, as clearly as I see them in my own, the clinical distinctions, I am sure you will accord with me that there is a clinical diagnosis in phthisis, and that it is just and proper that it should be recognized; for if they are different in origin, different in modes of development and progress, therefore necessarily different in treatment, and different in issue, it is but right, whether the destructive agent is distinct in structure or homologous, that we should have a separate name to represent things which, at all events, are different in their apparent nature.

In regard to treatment Dr. Clark said he pretended to no special knowledge of the treatment of phthisis. Whenever he encountered any chronic disease he dealt with it on principle. Every organism has a righting, a repairing, and a resisting power, and it exercises these powers in proportion

as we give them fair play. He proceeded always in a chronic case to determine what would be fair play for the organism suffering. Hence, diet, air, attention to the general functions, form always the first points of treatment in such a case. While the profession are ready enough to give a liberal supply of medicines, we too often overlook those minor details of daily life which, in the end, make and unmake life. Of tubercular phthisis he had very little to say. The principal thing to do is to look after the general health. The tendency to resistance being lowered permits the advance of the disease with which the patient is threatened. If he could keep him free from colds and consequently from pneumonias, he was practically doing as much for his patient as he could. There are no principles in medicine; it is in fact one of the most unprincipled of arts. Every organism is somehow or other different from every other, and it contains within itself the laws for its own management. The wise man, he who has the gift as well as the knowledge of healing, is he who with an instinct is ready to discover the laws of the organism with which he is dealing, and governs himself accordingly. It would be foolish to say in detail how he should deal with a case of tubercular phthisis. Regulated diet, moderate use of alcohol, air, exercise, avoiding colds are the principal means to be used. He had tried this medicine and the other, hypophosphites, arsenic, iron, cod liver oil, &c., but he could not say, looking at the whole with an honest, critical eye, he could lay his finger on any remedy which has any specific influence. As regarded caseous pneumonic phthisis, he believed in the efficacy of treatment. In an acute case, he had great faith in treatment. He puts his patient to bed and keeps him there until his temperature falls below 100°, no matter how long that might be. In cases where the secretions are scanty, the tongue dry, temperature high, pulse quick, he satisfied himself with a free use of salines and with counter irritation. If he found the patient remaining feverish, he gave up citrate of potash, and put a drachm of antimonial wine into a tumblerfull of water, and made him sup that during twenty-four hours. The skin breaks out into perspiration, tongue becomes moist, expectoration usually begins; then he immediately stops and treats his patient with effervescing alkaline salines with quinine and citric acid. He next feeds him with milk and beef tea. We often forget, practically, that liquid food goes quickly to the lung. In cases where exudation is going on in the lung, we minister to it by filling our patients with fluid food at short intervals. In rapidly extending pneumonia, he had seen exudation hurried to a fatal end by the administration of fluids every half hour. Food should be given in a more solid form, and not oftener than every four hours. This is one of the forms in which he believed alcohol to be extremely useful. In cell pro-

liferation, alcohol is useful, and he would extend it to scrofulous diseases generally. In regard to change of air, he first found out whether the most comfort was experienced in the valley or on high land, and would be guided accordingly. Hence what suited one person would be death to another. He deprecated the sending of patients away from home comforts when the disease was far advanced. Maderia and the South of France were the favorite and fashionable health resorts of English consumptives, but he knew of some remarkable instances where the murky atmosphere of London gave the greatest comfort to phthisical patients. He thought highly of our Colorado Canons and Florida, and regretted that they were not more easy of access to European phthisics.—*Med. Record.*—*Canada Med. Record.*

SUICIDE NOT AN EVIDENCE OF INSANITY.

Hon. O. H. Palmer (in the *American Journal of Insanity* for April, 1848), discusses this topic. He says that the diversity of manifestation is immense, unmeasurable and unascertainable. But this does not prove insanity, or derangement of the normal condition of the intellect. Sanity is the normal condition of the mind in all its diversities and variety of character. This is law as well as logic. Notwithstanding this principle is so well established, but few outside of the literature of the courts are found to believe it.

This phase of life and its antagonist, death, is so well understood by life insurance companies, that they try to protect themselves by clauses in their policies exempting the companies from liability in case of suicide of the holder of a policy, and yet how often do the companies fail to protect themselves, because an average jury cannot be made to believe that a man who commits suicide is not insane.

The rulings of the courts plainly establish the doctrine that there is no presumption of law, *prima facie* or otherwise, that self-destruction arises from insanity. To overcome and successfully combat this doctrine in a court, it will be necessary to prove the exception to the general rule.

Now, a feeling of disgust with life may be great enough to cause a man to commit suicide. Where, then, is the insanity? A man, rather than live under the stain of dishonor, may nerve himself to take his own life. Where is the insanity, as a necessity?

From the earliest times men have taken their own lives from one motive or another, and no one who shall read the historical accounts of those men's lives and deaths will for one moment doubt their sanity. The Japanese take themselves off to revenge an insult, because they think they can imme-

diately return to this world as avenging spirits, and bring a ten-fold evil on their enemies. This certainly is not insanity.

In fact, the whole history of suicide, whether in the sporadic form, or in an epidemic, shows that while a man may, in a fit of suicidal mania, take his own life, yet by far the largest number of cases of suicide occur when the subject is in his right mind.

—*Detroit Lancet.*

MANUFACTURE AND USE OF DIALYSED IRON.

Having seen the happiest effects recently from the use of dialysed iron, administered to two female patients suffering from chlorosis, both of whom objected to taking iron in any form as it had always made them suffer more unpleasant effects than did the disease itself; and the rapid benefit following the administration of this comparatively new preparation of iron, led me to read up its chemistry and mode of preparation. In addition to the very favorable notice from Dr. S. Weir Mitchell, I was very much impressed with the article written by Dr. Yandell, of Louisville, and also by an analysis given in a late number of the Boston Medical and Surgical Journal, by Dr. Emory, of Boston. Messrs. Jno. Wyeth & Bro., of this city, having specially called the attention of the medical profession to this preparation, I took the liberty of calling upon them, and asked if they would give me an account of their mode of preparation and allow me to visit their laboratory and see the practical workings of their appliances for the manufacture of this iron. Instead of using a commercial iron in the form of iron wire and filings they use a chemically pure sulphate of iron. The entire freedom of the iron from any impurity is very essential. The pure sulphate of iron is precipitated in large vessels by means of ammonia. It is then carefully washed, drawn out, and drained into a large steam jacketed kettle, and mixed with the proper proportion of sesqui-oxide of iron and heated to a temperature of 160 degrees. This gives the proper solution of per-oxide of iron ready for the process of endosmosis. The water they use to aid in the dialysation is furnished by an artesian well, dug for the purpose and the water is pumped into large vats on the roof of their four-story building. The water in these tanks is heated by steam through coils of pipe, which are so arranged that cold water may be added so as to regulate the exact temperature as may be thought necessary for the proper dialysation—this temperature being varied as the percentage of acid is lessened in the solution. Each appliance covers a surface of 400 square feet, enabling them to prepare about sixty gallons at one time with each one of their vessels. It requires from ten to thirty days to finish each separate acid solution placed upon the mem-

brane. Every day during the process the solution is carefully assayed by the person in charge, so as to enable him to regulate the temperature of the water and prevent the membrane from being clogged by the iron solution. The essay is made by precipitating with aqua ammonia well washed. Heat is applied to expel the excess of ammonia in the solution. Nitrate of silver is added. The mixture is then allowed to stand and afterwards decanted, washed, dried and weighed. Washing, drying and weighing shows the percentage of iron in the solution. The standard strength of their solution of iron is 24 grains to each fluid ounce of pure per-oxide of iron, each fluid ounce containing only sufficient chlorine to prevent decomposition. Occasionally if the dialysation is carried too far some portion of the solution will gelatinize from the dialysor, and occasionally if exposed to the sunlight or air too long before being bottled this solution of iron will become thick. If a small percentage of distilled water is immediately added it will regain its limpidity at once, but if allowed to remain in this condition for some time it undergoes exactly the same change that takes place with the official hydrated sesqui-oxide of iron when kept under water for a considerable time. This solution when properly prepared should be almost tasteless and yield no reaction of acid to litmus paper, or any of the ordinary tests.

The usual dose is from five to twenty drops given three or four times a day. Its freedom from taste renders it especially desirable for children. As experiment has shown that only a certain amount of iron will be absorbed into the system at one time, I cannot recognize the advantage of giving it in larger doses, although some medical men claim that they get better benefit when it is administered in half teaspoonful doses. Dr. Weir Mitchell especially advocates the larger doses. Dr. DaCosta and a number of our leading physicians seem to prefer smaller doses, usually from 10 to 20 drops as a full adult dose. The dose given to the patients to whom I make allusion above was 15 drops three times a day. Physicians will readily understand why this solution of iron when properly prepared can be depended upon as an antidote for poisoning by arsenic. Its chemistry is almost identical with that of the hydrated sesqui-oxide of iron.—*Cor. Cin. Lancet & Clinic.*

ATTITUDE AND EXPRESSION IN DIAGNOSIS.

POTTS' DISEASE OF THE SPINE.

This is a tuberculous condition of an inflammatory character, and begins at the calcinated tissue of the vertebræ. This disease may lurk in the spine for a long time before it is discovered. If a careful examination is made we can generally pre-

dict the approach of this disease. It is very prevalent in young children, from birth until they reach the age of fifteen. If the secret progress of this disease can be detected by any displacement, a cure can generally be effected without any serious disorganization. No matter how early it may be detected, however, there will always be some resulting deformity. I see almost every week cases of disease of the spine which have been entirely overlooked.

One of the symptoms whereby this disease may be detected in its early stage is a feeling of discomfort about the sides, attended with sudden spasms of pain; the child cries out suddenly, and then relieves the pain by laying down. Another symptom is grunting respiration, short, hoarse breaths. We may have this symptom without the presence of Pott's disease, but its presence should always awaken the suspicious physician. Then, again, we very frequently find a child with Pott's disease leaning over a table and complaining of a tired feeling. This symptom is often present, and when so, is one of great value. The muscles of the back are weary because they are not perfectly energized by the nerves which are compressed by the inflammatory deposits and thickenings at their roots. Then, again, I have often noticed a child with the prodromes of this spinal affection jump from a chair or sofa to the floor, and lighting on its feet, seem for a time bewildered. If such a child walks about much, it does so with a great degree of uncertainty, and has a most peculiar gait—the shoulders are drawn up, concealing the neck, the arms are fixed rigidly and held away from the body. The patient does all this, and shuffles rather than walks along, to prevent all concussion or of shock to the spine.

In a month or so after the disease has begun, the surgeon will be able to detect little irregularities in the spinal processes.

The least twist of the spine brings on pain and discomfort. The child is therefore compelled to keep perfectly rigid, and when it stoops, does so by bending one limb and carrying the arm down, while the spine is kept perfectly stiff, in other words, squats. The trapezius muscle is in a constant state of spasm, and so the patient keeps the shoulder up. The scapula, too, must be, and is, held up, for if it were allowed to drop, it would drag on the spine. The presence of this sign seems generally to indicate disease in the upper part of the column.

If, in any instance, you find one or more of these symptoms coexistent with pain in the chest and colicky pains in the abdomen, you may, in most cases, be pretty sure that you have to deal with a case of Pott's disease of the spine.

COXALGIA—HIP-JOINT DISEASE.

This disease very often goes on to its second

stage before it is detected. Treatment, if it is to be successful, must therefore be begun early. If treatment is begun early, we may get very excellent results.

Long before there is any marked deformity in this, as in Pott's disease, certain prodromic symptoms may be discovered. These symptoms, I say, are apparent before the hip affection is manifest.

The earliest sign is a certain posture assumed by the limb on the affected side. The patient stands in a peculiar way. He rests firmly on the sound limb, but not on the other. One limb is well nourished and rotund, the other is generally somewhat emaciated, and is advanced, carried forward, and flexed at the knee on the thigh, and at the thigh on the body. The foot is also everted. Another point is the change which may be noticed in the crease which separates the nates from the thighs. This crease is entirely gone on the diseased side.

The limb assumes the attitude which I have described above, on account of certain conditions due to effusion in the joint. There is in all cases a synovitis—the initial lesion, if in the head of the bone, induces the synovitis. The serum in the joint requires room, and the patient places the limb in a position to give this effusion the greatest room. The natural position of the limb would give it no room at all. The amount of room is increased by flexing the limb at the knee and the hip, and turning the toes out. You can very easily verify this fact in the dissecting room. To do this, you must bore a hole above the acetabulum in a sound limb, and inject water into the joint. The limb on the side where the joint has been thus injected will take the very position which it assumes in a case of coxalgia.

Another prodromic sign of the disease is the following: if a child is placed in the recumbent position, and if it is healthy, it is just possible to edge in the fingers between the child's loins and the plane upon which it is lying. To do this, of course, the child must be placed upon a table, or some flat surface, and its limbs well straightened out. If one of the joints, however, in such a child be diseased, the knees will be raised when the child is placed upon the table, and then, if they be thrust down, the whole fist can be introduced between the table and the loins—the whole pelvis, in fact, goes up as the knees are pushed down.

The reason of this ought to be very clear to you all.

When I force the knees down, I put the psoas and iliacus muscles on the stretch. To relieve the pain caused by this stretching of these muscles, the patient puts his body in the position on the table which I have described, viz, with his knees raised. —(*Clinic in Med. Record, by Prof. Agnew.*)

THE POLYMICROSCOPE.—A recent number of *Nature* states that "a new improvement in the

microscope is reported from Germany. Herr I. von Lenhossek has constructed an apparatus which permits no less than sixty microscopical preparations being observed in immediate succession, without the trouble of changing the slides and readjustment of the object-glass. Its construction is similar in principle to that of the well-known revolving stereoscopes, and the inventor has given the new apparatus the name of "polymicroscope."—*Pacific Med. and Sur. Four.*

TREATMENT OF WOUNDS OF THE SUPERFICIAL PALMAR ARCH BY ACUPRESSURE.—Mr. Bellamy believes that this simple method of treatment for serious wounds of vessels is not practised as frequently as it might be. He gives the case of a lad who divided the ulnar artery in the hand with a knife. He applied an Esmarch's bandage, but hæmorrhage soon recurred. He then plugged the wound and bound the hand firmly to a dorsal splint, but without effect. He returned bleeding as profusely as before. Mr. Bellamy then determined to try acupressure, and taking a stout hair-pin, passed it through the tissues about half an inch from the edge of the cut, under the artery, and out again to a corresponding distance the other side of the wound, and placed the limb again upon the splint. This had the effect of entirely stopping the bleeding; the needle was taken away on the fourth day, and the entire wound had closed by the end of the week.—*The Lancet.*

EXTIRPATION OF THE LARYNX.—Dr. George Wegner (Berlin), described, at the late congress of the Society of German Surgeons, the case of a woman, aged 52, who was operated on, in Sept. of last year. Tracheotomy was first performed on account of severe dyspnœa; and, the presence of cancer having been detected by laryngoscopic examination, the whole larynx was removed, along with the epiglottis. The patient was now in good health, and showed no signs of a return of the disease. She has used Gussenbauer's vocal apparatus occasionally, and had spoken distinctly with it. She could, however, wear it for only short times, as, in consequence of the fauces being imperfectly shut off from the trachea, portions of food and mucus readily passed into the latter, and interfered with the play of the metallic tongue. The cause of this was probably the removal of the epiglottis, from which proceeding, Dr. Wegner would abstain in any subsequent similar operation, unless it was found to be indispensable.

Dr. Wegner then showed the action of an artificial vocal apparatus on a girl aged 11, who, at the age of seven, had an attack of diphtheria, which was followed by cicatricial closure of the trachea and complete destruction of the vocal cords. When she was admitted to the hospital she wore a tracheal tube, and was quite voiceless.

By means of laryngotomy and the use of bougies, the laryngeal passage was made pervious.—*Maryland Med. Journal.*

DISEASE OF TONGUE.—EPITHELIAL CANCER VS. MUCOUS TUBERCLE.—You will notice this white, roughened spot on this man's tongue, on the left side, near the margin. It looks as if it had been recently touched with nitrate of silver, and, indeed, Dr. Hearn now informs me that caustic actually has been applied this morning. We will not, then, lay any stress upon the color, but will inquire into the history of the case, to seek to determine the character of the disorder. Twenty-two years ago the patient had a chancre, not followed by bubo or sore throat. He thinks this spot came on his tongue about two years ago; it has not materially increased in that time, and is not painful.

This looks very much like a mucous patch, such as we often find on the lips, tongue, and other mucous surfaces in certain subjects, as one of the results of syphilis. But I have never seen a mucous tubercle continue unchanged through so long a period as two years, and, therefore, we have a doubt entering into the diagnosis. One of two affections it must be, either a mucous tubercle or epithelial cancer of the tongue. As it is difficult to decide this question, we will institute treatment with a view to develop the diagnosis. I shall put this man upon specific treatment for constitutional syphilis, and if, as I have supposed, the affection is simply a mucous tubercle—as it seems to be, although its history would lead us to believe differently—I will expect decided results from the following treatment: I shall order that this man shall take ten grains of iodide of potassium and one-eighth of a grain of bichloride of mercury three times each day, in some simple syrup and water. The syrup of ginger will answer very well for the purpose. The iodides of potassium, sodium, or ammonium, are almost a specific in some forms of syphilis, and are about equally efficient. I generally aid their alterant, and corroborant effects by adding a small proportion of mercury. The mixture should be given after meals. Locally I will direct acid nitrate of mercury, diluted with water—one part to twelve—to be applied by means of a camel's hair brush, once in the twenty-four hours. Should the affection prove to be of syphilitic character, we shall be able to make a decided impression upon it in the course of a week or ten days. If the treatment prove of no avail I shall conclude that it is epithelial cancer. There are no enlarged lymphatics under the jaw, but should one be found it would not aid the diagnosis, for they occur in cancer as well as in syphilis.

The patient's diet must be restricted; he must eat very little meat. If this man had told me that this affection had existed for only a week or two I

should have very little hesitancy in announcing my diagnosis.—*Clinic of Prof. Gross.*

TREATMENT OF GASTRIC ULCER.—Dr. C. Hertzka, of Pesth, has employed chloral hydrate with excellent results in the treatment of ulcer of the stomach. He was led to try the drug because in addition to its hypnotic and anæsthetic powers, it has been demonstrated that it coagulates blood, favors the healing of ulcers generally, acts as a disinfectant, and, in particular, prevents the lactic acid fermentation, and finally, retards the functional action of the stomach and lessens the appetite. To a man, 48 years of age, who had been treated without success by the most various remedies, he administered every evening from forty-five to sixty grains of chloral largely diluted. This quantity was administered in three doses, at intervals of two hours, and at the same time Carlsbad water was freely given. On the third day the pains and vomiting ceased, and did not again recur. On the eighth day the patient was able to leave off the morphine injections, to which he had become accustomed. The chloral caused a severe burning sensation in the stomach, and produced a state of nervous depression, which ceased as soon as the treatment was discontinued (after fourteen days). Subsequently a feeling of burning and constriction in the œsophagus appeared at irregular intervals. Hertzka ascribed this feeling to the traction on the nerve-fibres by the contracting cicatrix in the stomach. For its relief subcutaneous injections of morphine had to be employed.

In a second case the chloral caused burning and vomiting. To prevent these unpleasant symptoms a morphine injection was administered two hours before the chloral, and large quantities of Carlsbad water were given after it. In future cases, Dr. Hertzka proposes to use smaller doses more frequently repeated.—*Centralblatt für med. Wissen.*—*N. Y. Med. Record.*

THE RATIONAL TREATMENT OF STRICTURE OF THE URETHRA.—In a paper with the above title, Dr. Samuel W. Gross holds that in order to restore the urethra to its normal calibre it becomes necessary to insert a piece of new, soft, pliant tissue between the divided sides of the cicatricial tissue upon which the narrowing of the passage depends. This may be accomplished in the great majority of cases either by division or internal urethrotomy, or, by a combination of both procedures, in accordance with the indications presented by each individual case. Previous to the performance of an operation, however, the experienced surgeon will remember that he has to deal with something more than a mere passive obstacle to the free passage of the urine or the introduction of an instrument. In every case there is associated with the contraction a subacute or chronic urethritis, which is a source of spasm and irritability, to the latter of which most of the reflected symp-

toms are due. Hence, in the rational treatment of this affection the indications are: first, to allay congestion, spasm and tenderness whereby the urethra will be placed in the best possible condition for operative interference; secondly, to bring the constriction up to the normal calibre of that portion of the urethra in which it is seated; and thirdly, to mitigate or prevent an attack of urethral fever.

With a view of inserting a splice in the contracted part, division or internal incision may be resorted to. Of late years I have practiced the former operation less frequently than the latter; not because I deem it unsafe, but because it is not always effectual. On three occasions I had the opportunity of inspecting the urethra of persons who had died after the procedures in the hands of other surgeons. In one instance the rents were so short that suitable splices could not have been inserted and, in addition, there were oblique lacerations in the healthy portions of the passage. These appearances are exhibited in the sketch that I made at the time. In the other two, although the tears were clean and long, there were submucous bands that had resisted the action of the divulsor. Thus of twenty-nine private cases, all of which recovered without a single accident, and in only two of which there was a chill, which occurred in patients who had not been subjected to preliminary treatment; in eight or twenty-seven per cent., the operation had to be supplemented by internal urethrotomy with the view of cutting undivided bands. For these reasons I consider divulsions as being far inferior to urethrotomy, but when the symptoms are urgent, as in the event of retention of urine or when the patient cannot spare the time for having the urethra sufficiently dilated to admit a cutting instrument, this much abused procedure possesses undoubted merits and is worthy of imitation, provided care be taken to search for unruptured bands and submit them to the knife.—*Medical Record.*

SUPRA-PUBIC LITHOTOMY.—C. W. Dulles, M.D., Phila., in a recent article (*N. Y. Med. Jour.*) analyzes the claims of this operation for stone, and concludes with the belief that it will some day be the one most generally employed. The two great dangers, peritonitis and urinary infiltration, are shown, both by the authorities and by the statistics, to be rarely encountered. It is true "the peritoneum may be encountered; it should be looked for, and, if met, gently pressed out of the way." The bladder should not be distended with an injection. "The operation, in its simplest form, is conducted as follows: The skin just above the pubes and over the linea alba is incised to the extent of a few inches, and an easy dissection brings one down to the region of the bladder. This is now pushed up on the end of a sound, passed through the urethra, and secured with a tenaculum. It is then incised to a proper extent and the calculus removed with fingers

or forceps. After which the wound should be covered with a light absorbent and stimulating dressing, the patient put to bed, and the subsequent treatment conducted on general principles."

The method of raising the bladder on the sound should be practiced first, if possible, on the cadaver. Theoretically, this operation affords the most direct, easy, simple and safe access to the bladder, and the author has no doubt that, if performed as generally as the perineal section, the results would be far more satisfactory.—*Toledo Med. and Surg. Jour.*

MALTINE.—At the late meeting of the British Medical Association at Bath in August last, among the exhibits of Pharmaceutical and Medical Preparations, much interest was shown in one called *Maltine*, which may be described as a highly concentrated extract of *malted barley, wheat and oats*.

Extracts of malt, (i. e., malted barley,) are pretty widely known, but this is the first example of a combination of the nutritious principles of these three cereals that we have seen; and the greater value of this combination is apparent, as wheat and oats are especially rich in muscular and fat producing elements. This preparation is entirely free from the products of fermentation, such as alcohol and carbonic acid, and is very agreeable to the taste. Clinical experience enables us to recommend it as a nutritive and digestive agent, in virtue of its albuminoid contents, and its richness in phosphates and diastase likely to prove an important remedy in pulmonary affections, debility, many forms of indigestion, imperfect nutrition, and deficient lactation. It will in many cases take the place of cod liver oil and pancreatic emulsions, where these are not readily accepted by the stomach, and we are disposed to believe that Maltine, which is less known here than abroad, is well worthy of practical attention.—*British Medical Journal*, Oct. 19, '78.

AN ULCER NUSSBAUMED.—After a liberal trial of the grafting process—and a patient and conscientious use of Esmarch's elastic bandage, these two being the latest novelties in the way of treating chronic ulcers, be they indolent or irritable, or both, I come back with more confidence to the operation suggested a few years ago by the distinguished surgeon Nussbaum. By it I have succeeded in curing these troublesome affections more surely, speedily and permanently than with any other plan.

The case before you is an indolent, irritable ulcer involving the skin over the internal malleolus. It has been treated in a variety of ways, occasionally it seems upon the point of yielding, it grows less and begins to heal, but upon the slightest provocation it reasserts itself. Upon exposure to cold or after fatiguing exercise, the healed portion yields, the irritability returns and the ulcer is soon of its original size—more indolent and painful. I now

make an incision around it one half inch from its margin. The incision must go through the skin, it must reach the cellular tissue above the muscles. By it you divide the vessels, the numerous adventitious vessels, developed in the peri-ulcerated skin, that feed the morbid process. In this way you cut off its direct and too liberal supply of blood. Into this canal you stuff lint and leave it there for 24 or 36 hours, long enough to prevent the severed tissue from rejoining by first intention. This is especially important with the arteries—they must not be allowed to unite. In a short time the ulcer will begin to shrink—day by day the healing progresses and in a week or probably two it will have disappeared.

This case was shown to the class three weeks after the operation. The ulcer had been healed but a mistake had occurred in leaving the lint too long in the canal, it remained five days, and in that time suppuration had occurred in the floor. The repair in the canal required as much time as the ulcer. The dressing after the operation is simple. Cold water for forty-eight hours, after that lint saturated with oil, simple cerate or vaseline.—*Lancet and Clinic.*

HIGH TEMPERATURE.—In the *London Lancet* of Nov. 9, '78, is the report of a case, occurring at the Metropolitan Free Hospital, in which the thermometric *temperature*, taken in the axilla, rose to 115.8° . The patient was a pale, weakly, nervous and hysterical woman, aged 32, the mother of four children, who had suffered four months previously with an attack of acute rheumatism, and had had pains ever since in the joints, back and abdomen, especially in the right hypochondriac region, where the pain was most intense. The extremely high temperature continued for several days, the above being the highest point reached. The pulse during the same period ran up to 140 or more, being at the time of maximum temperature 120. Five thermometers were used and one of these was afterwards verified by examination. Friction of the arm, as a possible source of increased heat was excluded by the absence of any appreciable movement on the part of the patient.—*Maryland Med. Journal.*

TREATMENT OF ASTHMA BY IODIDE OF POTASSIUM SPRAY.—Dr. Eurard, of Orsennes, has obtained very satisfactory results, in a severe case of asthma, from the use of a spray of iodide of potassium. The patient, a man thirty years of age, had suffered for eight months from daily attacks of asthma, and had also been subject to chronic bronchitis for five years. At the time the treatment was begun he had three or four attacks a day, and was reduced to a pitiable condition. After assiduous use of the spray for eight days the asthmatic attacks had almost entirely ceased. Eighteen

months have elapsed since then, but the patient continues to use the spray, and the attacks have not recurred. The strength of the solution used was one to twenty. The periods of inhalation were short, but frequently repeated.—*Boston Four. of Chemistry.*

THE METRIC SYSTEM IN MEDICINE:—

OLD STYLE.	METRIC.
	Gms.
mi. or gr. i. equals	06
fʒi. or ʒi. equals	4
fʒi. or ʒi. equals	32

The decimal line instead of *points* makes errors impossible.

As .06 (Drug) is less than a grain, while 4. and 32. (Vehicle) are more than the drachm and ounce, there is no danger of giving too large doses of strong drugs.

C. C. used for Gms. causes an error of 5 per cent. [excess].

A teaspoon is 4 Gms. ; a tablespoon 20 Gms.

TREATMENT OF DEEP SINUSES BY VILLATE'S MIXTURE.—Several deep sinuses have recently been under treatment in the surgical service in which no necrosed bone could be found, but which proved intractable to heal. Villate's mixture was tried, first of half strength, then of full strength. In some of the cases it proved of value, in others it failed partially or completely. The case in which it proved of most service was one of deep sinus in the neighborhood of the hip joint. The original composition of the mixture was:

R. Liq. plumbi subacet . . .	ʒj
Zinci sulph. cryst	
Cupri sulph. cryst	ʒā ʒ ss
Aceti. vini albi	fl. ʒ vjss.

The mixture was injected once a day, and proved a more satisfactory application than any other. Some patients complained of severe pain, others felt but slight inconvenience from it.

ACCORDING to *Harper's Weekly*, the members of the New York Medical Club were invited to an entertainment, a few years ago, by Dr. H. D. Paine, of that city, in the following terms:

"SCIENS, SOCIALITE, SOBRIETE."

DOCTORES.—Ducum nex mundi nitu Panes ; tritucum at ait. Expecto meta fumen tu te & eta beta pi. Super attento, uno. Dux, hamor clam pati, sum parates, homine, ices, jam, etc. Sideror hoc. Anser.

"FESTO REASONAN FLOAS SOLE."

Mr. Croft, of St. Thomas's Hospital, has been appointed Examiner in Surgery at the Royal College of Physicians, London.

SUCCESS OF ANTISEPTIC SURGERY.—Professor Volkmann of Halle relates (*Sammlung Klin Vortrage*, 117-118) a series of seventy-five compound fractures treated during four years by conservation under Lister's antiseptic method without the loss of one patient. The result is the more remarkable, that the fractures were in many cases into joints. In all cases, the skin was shaved, soaped, washed, and cleansed with carbolic acid; extensive effusions were incised and drained; the wounds were enlarged with the bistoury, so that every corner could be cleansed with the carbolised stream of water; splinters were removed; sharp points were taken off; and a large drainage-tube was introduced down to the bone, but not between the fractured ends. The dressings were applied under the spray, and were at first changed every twenty-four or forty-eight hours, afterwards at longer intervals.—*Brit. Med. Jour.*

CHARITY FOR ERRORS IN DIAGNOSIS.—Prof. D. Hayes Agnew, in his address before the Pennsylvania Medical Society, closes with the following beautiful words:

There are some persons who never commit errors, or, committing them, never have the magnanimity to acknowledge that they were deceived. I confess that I am humbled every year in making errors in diagnosis. Like Lucretius, I sink the lead over and over again and find no bottom. Indeed, I know I shall never attain to such an imperial rank of wisdom that disease will surrender all its secrets at my bidding. I shall make mistakes as long as I am in the flesh. There never was but one physician who knew all the truth, and He was divine.

With what tenderness does nature conceal her unsightly deformities by the interlacing tendrils of ivy or rhus, which she so ingeniously spreads over the smitten tree or the rugged cliff. Emulating her example, let us over each other's imperfections draw with loving hand the veil of charity.

There are few medical men, we imagine, who were taught in Philadelphia during the last two decades that do not remember with pleasure the lectures of Professor Agnew at the Pennsylvania Hospital. There was so much earnestness, common sense, and honesty in his discourse that Prof. Agnew was a favorite in all the schools.

COLLEGE OF PHYSICIANS, PHILADELPHIA.—Dr. Milner Fothergill and Robert Barnes, of London, have been elected associate members of the College of Physicians of Philadelphia. The number of associate Fellows is limited to twenty. The other British associates are Sir R. Christison, Sir J. Paget, Professor Acland, Drs. J. W. Ogle, Peacock, and Hughlings Jackson.

The Chinese government has issued an edict forbidding, under penalty of severe punishment, the cultivation of opium. Soldiers and officials are strictly prohibited from smoking under heavy penalties.

THERMOMETRY AS A GUIDE IN DETECTING MILIARY TUBERCLE.—It is stated in *Il Morgagni* that the "inverse" type of the body temperature, that is to say, a high degree in the morning and a lower one at night, is a symptom of great clinical value in the diagnosis of military tuberculosis, either acute or consecutive to caseous pneumonia. Out of seventy-one subjects dead from phthisis, Prof. Prunniche has noted this type of temperature in the proportion of 63 per cent.

In the subjects who had succumbed to caseous pneumonia without miliary tubercles the proportion was 25 per cent., while in the caseous pneumonias with miliary tubercles the proportion rose to 85 per cent.—*Med. and Surg. Reporter*.

ORIGIN OF DIPHTHERIA.—Diphtheria is believed to have originated in Egypt more than 2,000 years ago. It prevailed in Egypt and Asia Minor, to which it extended, during the first 500 years, and hence was early called an Egyptian or Syriac disease. Having invaded Europe, the disease appeared in Rome, A.D. 330, and being akin to the plague, of which it may be a remote modification, having had some origin with some similar characteristics, and being like it and malignant typhus, highly contagious, the disease, in its 1,500 years' transit on the continent of Europe, affected mainly rural districts and garrisoned towns. It had extended to Holland, in which it was epidemic, in 1337; to Paris in 1576, and appeared in 1771, having prevailed more extensively in France in 1818 and 1835, and in England, the United States and Canada from 1856 to 1860, and more or less since.

LIQUOR SANTAL FLAVA CUM BUCHU ET CUBEBA.—This preparation appears likely to become a favorite prescription in cases of gonorrhoea and gleet. It contains three remedies of proved utility in these diseases, the santal oil especially having a very extraordinary power to arrest certain cases of gleet. Experience has shown this preparation to possess the same efficacy as the santal oil itself. It mixes perfectly with water and has a taste by no means disagreeable, in which particular it contrasts very favorably with the ordinary mixtures it is intended to replace.—*Cincinnati Lancet and Clinic*.

A MILK TEST.—A German paper gives a test for watered milk, which is simplicity itself. A well-polished knitting needle is dipped into a deep vessel of milk, and immediately withdrawn in an upright position. If the sample is pure, some of the fluid will hang to the needle, but if water has been added to the milk, even in small proportions, the fluid will not adhere to the needle.

The *American Medical Bi-Weekly*: (1.) Practical success in life depends more upon physical health than is generally supposed. (2.) The success of local professional men depends in no slight degree

on their physical health. (3.) The greatness of our great men is quite as much a bodily as a mental one.

THE SYMPTOM OF TENDON REFLEX IN LOCOMOTOR ATAXIA.—Westphal and Erb have described two forms of reflex tendinous phenomena as occurring in the early stage of locomotor ataxia. Thus if in a healthy person the ligamentum patellæ of the loosely hanging leg, or the tendon of the quadriceps femoris, be struck a smart blow with the side of the hand a more or less violent kick will follow, while if the tendon of Achilles be struck in the same manner the heel will be raised. In locomotor ataxia it is claimed that these phenomena are absent. Dr. A. M. Hamilton (*Boston Med. Jour.*, Dec. 27, '78,) reports eight cases of this disease. In these cases one half present this symptom, but in the other half the tendon reflex is not only present, but in some cases markedly increased. Thus it would appear that this symptom is of less value than has been claimed. But when it is present coupled with the so-called lightning pains, plantar anæsthesia and dimness of vision, it has great force, even in view of Dr. Hamilton's observations.—*Detroit Lancet*.

PROPYLAMINE IN CHOREA.—(*Le Mouvement Medical. Med. Record*, Nov. 30, 1878.) Dr. Parkhauser recommends propylamine as a prompt and effective remedy for chorea. He claims that it effects a cure in three or four days; relapses are cured in one or two days. He gives it in doses of from 25 to 19 grains per diem. This quantity is dissolved in four ounces of water and one ounce of syrup, and a spoonful is given every hour. In his hands, three or four grammes, administered in as many days, have invariably produced a complete cure.

TREPHINING IN EPILEPSY.—Prof. D. Hayes Agnew (*Philadelphia Medical Times*) reports a case of epilepsy following an injury of the parietal bone by a fragment of shell in 1863. A few months since, when the patient entered the university hospital, Prof. Agnew removed a portion of the bone, and found an exfoliation on the inner table which pressed on the brain. There was no return of the convulsions and the man was perfectly cured. This is the second case of trephining for epilepsy by Dr. Agnew with the same favorable result.

INJECTING A TUMOR WITH MORPHIA BEFORE EXTIRPATION.—Half a grain of Sulph. Morph. with a thirty-sixth of a grain of Sulph. atropiæ, was injected in a fibrous tumor on the upper arm weighing about a pound, and its removal accomplished without pain. The case was reported to the North Carolina Medical Society by Dr. Foote, its late president. A second case was mentioned with the same result. In both instances sleep came on only after several hours.—*Pacific Med. Journal*.

THE CANADA LANCET.

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AGENTS.—DAWSON BROS., Montreal; J. & A. McMILLAN, St. John, N.B.; GEO. STREET & Co., 80 Cornhill, London, Eng.; M. H. MAHER, 16 Rue de la Grange Bateliere, Paris.

TORONTO, FEB. 1, 1879.

ENUCLEATION OF THE UTERUS.

Before proceeding to discuss this operation, we desire to correct an error inadvertently committed in our review of the history of medical science of the past year, in announcing as a novelty a recent enucleation of the uterus per vaginam by Professor Lane, of the Medical College of the Pacific. The long period of time that has elapsed since the operation was first successfully performed, (over fifty years ago) may, perhaps, be fairly urged as an excuse for the oversight. In the present day there is such a flood of novelties in every branch of the profession, chronicled in American, English and Foreign Journals, that there is sometimes a difficulty in at once recognizing that the true is not new, or the new not true. To accord the meed of praise to the real originators of this operation, we must go back to the early part of the present century.

Velpeau has collected twenty-one instances of removal in twenty years, but not one of them proving to be permanent cures, principally, we apprehend, in consequence of a want of sufficient care in determining whether the disease had left the pelvic glands, rectum, bladder and ovaries, free from its ravages. Dr. Blundell has four cases on record; three died before they had recovered from the effects of the operation, and the fourth within twelve or fifteen months. Madame Boivin remarks that out of nineteen cases, most of them died on the second, or on the third day at the latest, some in a few hours, or even in a few moments after the extirpation. Concerning Dr. Blundell's fourth case, Dr. Ashwell remarks: "The preparation of the rectum and bladder in the last example now in 'Guy's' Museum, shows how ably

and safely the operation was completed, and how well the parts cicatrized, but it also proves how difficult and nearly impossible it is, to form an accurate estimate of the extent of the malady, and the risk of its return. Although the diseased viscus was wholly taken away, the rectum became the seat of malignant disease, and the patient died in the Hospital from invincible constipation." The following is Dr. Blundell's account of the operation, abridged. Mrs. Moulden, aged 50, mother of several children, was pronounced, on examination, to have cancer of the womb. The upper part of the vagina was also involved, but, on the most careful examination, no disease of the other adjacent organs could be discovered. The bowels having been cleared, and the patient resolved to submit to the operation, on the 19th of February, 1828, I determined to remove the diseased parts without delay. For this purpose, having placed the woman on the left side, close upon the edge of the bed, with the loins posteriorly, the shoulders advanced, the knees and bosom mutually approximated, and the abdomen directed a little downwards towards the bed, I began the operation. I commenced by passing the index and second finger of the left hand to the line of union between the indurated and healthy portions of the vagina, and then, by taking the stem knife in my right hand, I could at pleasure lay the flat of the blade upon the point of these fingers, and urge the point of the instrument a little beyond the tip. The apex of the forefinger being in this manner converted into a cutting point, by little and little, I gradually worked my way through the back of the vagina towards the front of the rectum, so as to enter the recto-vaginal portion of the peritoneal cavity. A small opening having been formed in this manner at the back part of the vagina, the first joint of the forefinger was passed, so as to enlarge it a little by dilatation and slight laceration. This done, I proceeded to make an incision transversely, that is from hip to hip; for this purpose carrying the finger with its cutting edge from the opening in the vagina already made, to the root of the broad ligament on the left side, so as to make one large aperture. I then took a second stem scalpel, having the cutting edge on the opposite side of the blade, and, from the middle of the vagina where the former incision commenced, I carried the incision to the root of the broad ligament

on the right side, so that the diseased and healthy portions of the vagina behind became completely detached from each other. The back of the vagina having been divided in this manner, I introduced the left hand into the vagina, passing the first and second fingers through the transverse opening along the back of the uterus. Then, taking a blunt hook, mounted on a stem eleven inches long, I passed it into the abdominal cavity through the transverse opening, and with little pain to the patient, pushed it into the back of the womb near the fundus, and then drawing the womb downwards, and backwards towards the point of the os coccygis, as I carried the fingers upwards and forwards, I succeeded ultimately in placing the tips over the fundus in the manner of a blunt hook, after which, by a retroversion, the womb was very speedily brought downwards and backwards into the palm of the left hand, then lodging in the vagina, where at this part of the operation the diseased part might be seen distinctly enough, lying just within the genital fissure. The process of removal brought to this point, the diseased structure remained in connexion with the sides of the pelvis by means of the Fallopian tubes and broad ligaments, and with the bladder by means of the peritoneum, the front of the vagina and the interposed cellular tissues, parts which were easily divided, so as to liberate the mass to be removed. The broad ligaments were cut through, close to the uterus, and in dividing the vagina, great care was taken to keep clear of the neck of the bladder and of the uterus. The operation was facilitated by previous child-bearing. Not more than five ounces of blood were lost during the operation, the greater part coming away when the diseased structure was detached from the bladder and vagina in front. The intestines approached the aperture but did not protrude; after the operation the sides of the vagina collapsed and the aperture above seemed to be covered by a retroversion of the bladder.

In modern times, Pean of Paris, Storer of Boston, Cutter of Newark, Wood of Cincinnati, Hackenburg of Hudson, Atlee of Philadelphia, Weber of Cleveland, Gaillard Thomas of New York, Trenholme of Montreal, and others, have removed the uterus and appendages by gastrotomy. Recoveries, however, are the exception. Of twelve operations recorded in Dr. Thomas's work on female dis-

eases, there were eleven deaths. We would call the attention of our readers to the position Dr. Blundell placed his patient in, as prefiguring the views of Dr. Marion Sims on this subject.

STATISTICS OF PUERPERAL FEVER.

In the *Revista Medico-Quirurgica* of Buenos Aires, of 8th October, 1878, there appears a very interesting memorial, presented to the Medical Association of that city, by Dr. E. R. Coni, the able editor-in-chief of the above-named excellent periodical. Dr. Coni observes that in comparison with twenty-seven of the most populous cities of Europe and America, Buenos Aires holds a rather gratifying rank, since the majority of those exhibit in their statistics a mortality from puerperal affections larger than that which has obtained in his own city. But he adds, "unfortunately we cannot affirm the like of the maternity department of our General Hospital for Women, which figures as one of the most deadly." Dr. Coni shows that in 10 years, from 1858 to 1867 inclusive, 150 deaths from puerperal affections took place in Buenos Aires; and in the succeeding 10 years, 317 deaths resulted. The proportionate mortality in the above two decades, Dr. Coni regards as not unequal, when compared with the augmented population of the latter period;—(say 110,000 and 220,000, respectively.)

The following statistics show the average annual mortality, from puerperal diseases, in large towns:—*Vienna* (670,183), 1258 deaths in 10 years, 1865-74; annual average 125. *Prague* (165,526), 2,260 deaths in 10 years, 1865-74; annual average 226. This excessive mortality, seven times greater than that of Buenos Aires, which has a larger population, is explained by the fact that Prague has a great maternity, which has been scourged by terrible epidemics of puerperal fever. The mortality now obtaining is considerably less. *Trieste* (123,098), 198 deaths in 10 years, 65-74, or annual average 19, a mortality, in respect to population, about equal to Buenos Aires. *Munich* (193,326), 133 deaths in 10 years, 66-75. *Leipzig* (124,797), 137 in 4 years, 72-75. *Turin* (212,644), 703 in 10 years, 65-74, or more than twice the average of Buenos Aires; both cities being almost equal in population. *Boston* (250,526), 562 in 9 years,

64-72. *Stockholm* (150,446), 510 in 10 years, 64-73. *Amberes* (156,671), 238 in 7 years, 68-74. *Berlin* (968,634), 1,030 in 5 years, 69-73. *Cologne* (129,865), 231 in 10 years, 65-74. *Paris* (1,851,792), 1,647 in 4 years, 72-75. *London* (3,489,428), 2,250 in 4 years, 70-73.

Dr. Coni offers the following remarks on the preceding statistics: "We deduce from the above data, that of the great cities mentioned, 9 show a mortality from puerperal diseases, greater, in proportion to the population, than that of Buenos Aires. These cities are Vienna, Prague, Munich, Leipzig, Amberes, Berlin, Cologne, Paris and London."

The following statement is fearfully startling, and should command the serious consideration of all projectors and managers of maternity hospitals. "Comparing the puerperal mortality with that of the city at large, whilst the latter was 4 per 1000, that of the maternity was 80 per 1000. Dr. Parodi, treating of puerperal fever, tells us that from 1870 to 1879, 62 women were attacked, of whom 30 died. In 1872 and 1874, puerperal fevers of an epidemic character re-visited the maternity; in the months of September and October 1874, 19 parturients were affected, of whom 15 died. With good reason, Hespain, at the Congress of Hygiene at Brussels, uttered the following words: 'In reality, gentlemen, to locate maternity hospitals in the centre of cities; in parts thickly populated; in the vicinity of dangerous and prejudicial establishments;—to connect them as integrant parts, or as accessories of general hospitals;—what is this but placing in an already vitiated atmosphere, unfortunate parturients, whose bodies exhale additional impurities? That these women should be visited and touched by students who frequent dissecting rooms, dress wounds, and frequent wards occupied by infectious cases (unless the greatest care be exercised); that they should be placed in contact with infirmiry nurses, or others who move through the hospitals, or attend special clinics;—is not this to expose them to all the dangers of direct contagion? To receive these patients into a maternity in which the epidemic exists, or from which it has only recently withdrawn,—is not this to hand them over to the terrible consequences of infection?'"

The following opinion expressed on the subject of lying-in hospitals, by Dr. Magdell, of St. Petersburg, deserves serious consideration: "What is

truly necessary for a maternity, is not a grand structure; is not an accumulation of parturient women. It is, on the contrary, to distribute the puerperals over the extensive territory of the city; to establish small asylums, especially in the districts of the poor. The result will then be the same as we have realized in St. Petersburg."

The above statistics show that the strictest care and the most constant vigilance should be exercised by those who have the responsibility of the management of maternity hospitals. Only those women who have no homes of their own should be received into a maternity, so that it may never be overcrowded, and the practice of having the poorer classes attended in their own homes should be encouraged. In Toronto and other places in Canada, only the 3rd and 4th year students, or those who have completed their dissections, are admitted to the practice of the maternity.

NEW REMEDIES.—In the *Pacific Medical and Surgical Journal*, for October, 1878, there appears an article by Dr. Gibbons reflecting on the merits of certain New Remedies introduced by Dr. Bundy through the house of Parke, Davis & Co., of Detroit, Mich. Dr. Gibbon's charges appear to be—that the remedies were "pretended," introduced under fictitious Spanish names, and that if Dr. Bundy introduced them they were unworthy of notice because he was an eclectic. These statements were taken advantage of by parties desirous of injuring the sale of the new remedies. In the December number of the above named Journal, Dr. Gibbons remarks as follows:

"We notice that the article published in our October number, from the pen of Dr. W. P. Gibbons referring to certain "new remedies," so called of California origin, has been misrepresented in some quarters as denying medicinal virtue to the plants in question. This was not its design, nor did the therapeutic value of the remedies enter into consideration. The object was to expose the deception of introducing preparations of old remedies under new names, and claiming originality without deserving it. Several of the plants in question are really valuable.

Whilst on the subject, we will correct an error in spelling. Cascara (bark) sagrada (sacred) is the common Spanish name of the *Rhamnus Purshiana*,

and means simply *sacred bark*. The adjective should end *a* and not in *o*, as it is commonly spelled. The old Spanish or Mexican population of the coast had a number of medicinal herbs which they employed in default of officinal plants. Not knowing the botanical names, common names were given, indicating their supposed good qualities. "Yerba Sana" was holy herb; "Yerba Buena" good herb, and so on."

The house of Parke, Davis & Co., of Detroit is too well known to require any endorsement from us, and we are quite certain that no one would suspect them of knowingly introducing any remedies, new or old that were not genuine.

ARTIFICIAL INCUBATION.—A gentleman in Montreal has recently imported from Paris, at considerable expense, an apparatus for the artificial incubation of eggs. It consists of a box, the upper part of which contains a cistern filled with boiling water, and underneath this a drawer for the eggs, with a thermometer. The depth of water in the tank is shown by a water gauge outside, and this is drawn off and replaced gradually by heated water. In ten days the process of germination has been established in the eggs, and a great amount of latent heat is evolved, which lessens the amount required to be generated by the incubator. In three weeks the work is perfected, as in the ordinary way, nature having been copied in every particular, even to allowing the eggs to remain exposed a certain space of time, as is the habit of the hen, when in search of food or water, the daily turning of the eggs as is done also by the mother, &c., &c. The result is a successful issue of the whole brood. Then begins the feeding process, none the less difficult in detail, but by copying nature made easy. We refer to this not because of its novelty, but because of the scientific interest which attaches to it, although as our friend sagely remarked: "*Art* may develop Nature's germs, yet it required Nature herself to produce them," so that the hen will still be indispensable.

GERMAN MEDICAL STUDENTS.—The following statement of the number of medical students attending universities in which the German language is used by the teachers, is taken from the calendars of the summer half year of 1878, as given in the columns of the *Medicinische Wochenschrift*, of 26th of Oct. 1878.

Vienna 658; Wurzburg 475; Munchen 456; Dospat 387; Berlin 346; Leipsic 335; Greifswald 233; Zurich 184; Freiburg 181; Breslau 178; Strasburg 168; Tubingen 164; Goaz 161; Bourne 154; Bern 137; Konigsbay 135; Volangen 132; Halle 117; Gottengen 115; Marburg 110; Girssen 108; Heidelberg 103; Kiel 92; Jena 87; Basel 70; Rastock 39; total 5,324. It is pretty evident from the above figures, that Germany is in no present danger from thinness in the ranks of the medical profession; and there is little ground for the hope that the surplus products of American colleges would meet with a paying market beyond the Rhine. Could we feel assured that both in European and American medical schools, the education given was as complete as the dignity of the profession should exact, we might not apprehend any unfortunate results from plethora; but we fear that honourable competition must thrive badly in any walk in life in which three or four men are doomed to live on the profits of one.

AN ANTIDOTE TO POISONING BY PHOSPHORUS.—A successful antidote to poisoning by phosphorus has been recently discovered by two French physicians. The remedy consists in the slow and gradual injection of oxygen into the veins. The *modus operandi* is as follows. Phosphorus has a great affinity for oxygen, and accordingly when absorbed into the system, its injurious effect is due to the fact that it unites with the oxygen in the tissues, thus producing dangerous or fatal symptoms. Accordingly by the introduction of oxygen into the veins, the phosphorus is thus oxidized, and prevented from robbing the blood corpuscles of their oxygen, which would otherwise be the inevitable result. The operation of injecting the oxygen being inexpensive and presenting no difficulty to the medical practitioner, we may expect to see this remedial method generally adopted in cases of poisoning by phosphorus.

THE BRITISH MEDICAL SERVICE.—The Medical Department of the Royal Navy has been for some time past very unpopular in Great Britain, and as there is a scarcity of applicants for the vacant situations, it is expected that tempting offers will be made to Colonial medical men to enter the service. A writer in the *Hamilton Times* who signs himself "A Retired Medical Officer" cautions

Canadian students to beware of any tempting offers emanating from the department of the Medical Director General of the Navy. The unpopularity of this service is owing to the "one man" system of government. The head of the department, Sir Alexander Armstrong is an Irishman, and whether justly or unjustly, he is charged with being very partial to his own countrymen. Those therefore who can claim some Irish-blood are certain to fare better than those who cannot.

MEDICAL LEGISLATION.—The members of the profession in the Maritime Provinces are considering the propriety of making some effort towards medical legislation similar to, or better if possible, than that now in force in Ontario. They are becoming tired of free-trade in medicine, and are now beginning to wake up to the prospective benefits of protection. We shall be very glad to see their efforts crowned with success. All that we shall say at present is that the Ontario Medical Act has done great service to the cause of medical education, and has also diminished to a great extent the evils of quackery; but that it did not accomplish more in the latter direction was no fault of the Act itself.

SANITARY PROTECTION ASSOCIATION.—A Sanitary Protection Association has been recently formed in Newport, R.I. The objects of the Association, based upon that recently found so successful at Edinburgh, and the first of the kind so far as known, as yet established on this continent, are as follows:—1. To provide its members, at moderate cost, with such advice and supervision as shall insure the proper sanitary condition of their own dwellings. 2. To enable members to procure practical advice, on moderate terms, as to the best means of remedying defects in houses of the poorer class in which they are interested. 3. To aid in improving the sanitary condition, and consequent good repute of the city, by following such course as, in the opinion of the Council, may seem calculated to promote this object.

PHARMACEUTICAL PREPARATIONS.—We desire to call the attention of the profession to the pharmaceutical preparations of Messrs. H. Sugden Evans & Co., of Montreal. They manufacture a large number of preparations that are in constant use by the profession, and of a thoroughly reliable char-

acter. Their drugs are all first quality, and the utmost care is exercised in their preparation. As a Canadian house we feel a just pride in alluding to their enterprise.

TREATMENT OF DIPHTHERIA.—In the *Med.-Chir. Contrablatt*, No. 22, Prof. Klebs, of Prague, describes a series of experiments performed on himself and others with a view of testing the efficacy of benzoate of soda in destroying the microscopic fungi present in diphtheria. Diphtheritic membranes were soaked in a solution of benzoate of soda, and afterwards inoculated upon the surface of several healthy animals, but it had no effect. In other animals inoculated with the diphtheritic fungus, the injection of a solution of benzoate of soda destroyed the diphtheritic membrane in ten minutes. Klebs gave benzoate of soda in five gramme (75-grs.) doses without any unpleasant effects.

MALTINE.—This new substance is attracting the attention of physicians in England and the United States. It consists of the concentrated extract of malted barley, wheat and oats, and contains in an eminent degree, those principles which are necessary to repair the waste, and maintain the heat of the system. It has been found of great service in the treatment of general debility, indigestion, and wasting diseases of children. It contains no alcohol, and is very palatable and agreeable to the stomach.

IMPROVEMENTS.—We are pleased to observe that our highly esteemed cotemporaries *The British Medical Journal* and *The Medical Times and Gazette* are trimmed at the margins, so that the reader is no longer under the necessity of spending a quarter of an hour with the paper knife before he can see the contents. The *London Lancet* we hope will follow suit.

VACCINE ESTABLISHMENT NEAR MONTREAL.—Dr. Bessey of Montreal still continues the propagation of cow-pox virus—by vaccination from heifer to heifer—on the Logan farm, near Montreal. Only young animals are selected for this purpose. On the above farm are about thirty animals which have had the cow-pox within the past six months. No injury results to them from the infection.

THE LATE DR. MEILLEUR.—Dr. Meilleur, whose death is noticed in another place, was a disting-

uished French Canadian. He was educated in Montreal, and entered upon the profession of law, which he abandoned for that of medicine. In 1834 he was elected to Parliament, and was instrumental in establishing a department of education, to which he was appointed first superintendent, and continued in office from 1842 to 1855. Dr. Meilleur was also a writer of considerable merit. He was the author of a treatise on chemistry, an abridgment of grammar, a work on epistolary composition, a memorial on education, &c. His portrait appears in the *Canadian Illustrated News* of Jan. 4th, 1879.

THE PLAGUE.—The *Weiner Medicinische Wochenschrift*, of a late issue says the plague is spreading with terrible rapidity in Russia, and that it is now almost too late to attempt to stay its progress. The prominent symptoms of the disease are headache, fever, and swellings of the glands. There is also said to be a scarcity of medical men—so many died either during the late war, or from the typhoid epidemic which followed it. The Austrian and German Governments are using active measures to prevent the incursion of the disease into their respective countries.

DENTISTRY.—Mr. A. Preterre, the surgeon dentist of 29 Boul. des Italiens Paris, so well known to all medical practitioners by his brilliant works on dental practice, and his apparatuses for palatine restorations, &c., has obtained at the Universal Exhibition of Paris, the sole gold medal awarded to dentists.

“DR. MILLINGEN, who attended Lord Byron during his last illness at Missolonghi, died at Constantinople on the 1st of Dec., 1878, at the age of 78.”

NEW AND POWERFUL OBJECTIVE.—Mr. Tolles of Boston has recently perfected a lens of $\frac{7}{8}$ objective. The power is about 7.500 diameters, and costs \$400.

APPOINTMENTS.—Dr. Kennedy, formerly of Dundas, is stationed at Fort McLeod, Manitoba. Dr. Walkem has been appointed Inspector of Penitentiaries in British Columbia.

REMOVAL.—Dr. Tunstall, of Papineauville, Que. has removed to Montreal.

Sir William Jenner has retired from the position of Professor of Morbid Anatomy which he has filled at University College, London, for nearly thirty years.

CORONERS.—R. Tracy, M.D., of Belleville, to be an Associate Coroner for the County of Hastings. D. McLarty, M.D., of St. Thomas, to be an Associate Coroner for the County of Elgin.

Reports of Societies.

COUNTY OF OXFORD MEDICAL ASSOCIATION.

The first quarterly meeting of this Association was held in Woodstock on the 9th ult. Dr. Turquand president, in the chair.

Members present were Drs. Bowers, Williams, McKay, Hoyt and Scott, of Ingersoll, Drs. Turquand, McKay, Swan, McLay, Hill, and Millman, of Woodstock, Dr. Clement of Innerkip, and Dr. Secord of Bright. Among the visitors present were Dr. Bucke, Superintendent of the Asylum for Insane, London; Dr. Clark, Superintendent of the Asylum for Insane, Toronto; and Drs. Burt and Sinclair, of Paris.

The minutes of the last meeting were read and confirmed.

Very interesting papers were then read by Dr. A. McKay, of Ingersoll, on “Pleuritic Effusions”; and on “Functional Diseases of the Spinal Cord,” by Dr. H. M. McKay, of Woodstock. Both papers elicited lively and instructive discussion, the visiting gentlemen, as well as the members, taking an active part, and citing some very interesting and varied cases.

The retiring President, Dr. Turquand, then addressed the Association as follows:

GENTLEMEN,—It is with much pleasure I now address you, as is customary on such occasions as the present. I am glad of the opportunity of assuring you of my grateful and kindly feelings towards the members of this Association, and of my zealous interest in its objects and welfare. I believe that notwithstanding the whisperings of discontent, the murmurings of disappointment, and the predictions of failure, of which we have occasionally been made aware, we may look forward hopefully to our future. I look upon this Association not so much as one for mutual improvement (professionally), as one of a social character, drawing together the medical practitioners from the various sections of the county for the kindly interchange of thought and sentiment. I feel convinced

that as we know each other better we shall learn to appreciate each other's good qualities, and feel more interest in each other's welfare. Our meeting together from time to time in this manner tends to soften down asperities, to rub off, as it were, the rough edges of our nature, promotes harmony and good feeling amongst us, and prompts us to aid and support each other in the cares, anxieties and disappointments we have to endure, and in the various trials and difficulties with which we have to contend in the daily discharge of our professional duties.

We belong, gentlemen, to a noble profession, the most generous and most unselfish of all professions or callings. I honestly believe that nothing would do more to unite us in friendly intercourse than the adoption and strict observance of a code of medical ethics—that of the “Canada Medical Association” is claimed to be “founded on the great principles of truth, justice and honor,” and I would add those of “morality and virtue,” in their application to the “relations of physicians with one another, their patients and the public at large.”

Professor G. B. Wood, in commending the code of the American Medical Association, says:—“It is the voice of wisdom and experience speaking from the past, and meets a ready response in the breast of every man possessed of a good heart, a sound judgment and correct moral principle. Should any one find a repugnance to the observance of its rules rising up within him, let him for a moment reflect whether this may not spring from some evil source in himself; whether it may not be the result rather of an unwillingness to make what he may deem a sacrifice at their suggestion than a real conviction of their injustice or impropriety. Which is more likely to be true—the unbiased and unselfish judgment of the wisest and most experienced in the profession, or an individual decision which may at least be suspected of a selfish basis, and of which no man, if his interests or feelings are in any degree involved, can say it is quite pure? For no man can judge impartially in his own case. A becoming modesty would lead him to suspect that the fault might be in himself, and a becoming spirit to search into the secrets of his own heart for the root of the evil, and to pluck it out if discovered.” Professor Wood goes on to say:—“I have no doubt that a full, faithful and honest observance of these rules would do more than any one thing else to maintain harmony in the profession and to elevate it in public esteem. It would render impossible those unseemly disputes founded on petty jealousies and supposed opposition of interests which, probably, beyond any other single cause, exposes the profession to obloquy and ridicule.”

I trust this meeting will adopt the rules of the Canada Medical Association in their entirety, and that they will become henceforth the uncompromising guide to our professional life.

The Code of Ethics of the Canada Medical Association was adopted without any amendment.

The following officers were elected for the ensuing year:—President, Dr. Williams, of Ingersoll; 1st Vice-President, Dr. Swan, of Woodstock; 2nd Vice-President, Dr. Clement, of Innerkip; Sec.-Treas., Dr. Millman, of Woodstock. The President elect took the chair.

After a very cordial vote of thanks to the President and the visiting gentlemen, the Association adjourned to meet at Ingersoll in April next.

Dr. Bucke extended to the members of the Oxford Medical Association a cordial invitation to attend the meeting of the Dominion Association in London in September next.

Books and Pamphlets.

THE SCIENCE AND PRACTICE OF SURGERY, by F. J. Gant, F.R.C.S., Surgeon to Royal Free Hospital, London, Eng. Second edition in two volumes. London: Balliere, Tindall & Cox. Toronto: Willing & Williamson.

The second edition of this work on surgery by Dr. Gant has been so much enlarged and rewritten that it may be considered almost a new work. The work is divided into two parts: I. General Pathology and Surgery; II. Special Pathology and Surgery. The chapter on inflammation is a most admirable one. The chapter on the general treatment of fractures is especially good. The author gives in a practical manner the features of each variety, and then follows the general plan of treatment. His description of the application of the starch bandage is not as complete as it might be. He uses short splints of pasteboard around the seat of fracture, instead of as usual carrying the splints to the joints above and below the fracture. The subject of excisions is discussed very fully, as are also amputations. The author takes more pains than is usual among surgeons to point out the kind of artificial limb to be adapted to the stump after amputation. The work shows evidence on every page, of careful and laborious work, and cannot fail to be a useful guide to the practical surgeon.

THE POPULAR SCIENCE MONTHLY,—By E. L. and W. J. Youmans. New York: D. Appleton & Co.

The *Popular Science Monthly* is now a large octavo of 128 pages, and will be considerably en-

larged, beginning with the issue for January, 1879. It is handsomely printed on clear type, and, when necessary to further convey the ideas of the writer, fully illustrated. It contains accounts of important scientific discoveries; the application of science to the practical arts; the latest views put forth concerning natural phenomena, by *savants* of the highest authority. It is an instructive and valuable monthly, and, as a consequence, is continually increasing in circulation and influence. See our commutation rates.

THE PRINCIPLES AND PRACTICE OF SURGERY. By D. Hayes Angew, M. D., LL. D., Prof. of Surgery in the University of Pennsylvania. Illustrated. In two volumes. Vol. I. Pp. 1662. Philadelphia: J. B. Lippincott & Co. Toronto: Willing & Williamson.

The author has been a successful teacher of surgery for the last twenty-five years, and no one is better qualified for the task of writing such a work as the volume before us. The first volume and the only one yet issued, deals with "Diagnosis," "Inflammation," "Wounds," "Injuries of the Head," "Injuries of the Chest and Abdomen," "Wounds of the Extremities," "Diseases of the Abdomen," "Diseases of the Blood-vessels," "Ligation of the Arteries," "Surgical Dressings," "Diseases and Injuries of the Osseous System," so that in all probability, vol. No. 2, which is to complete the work, will be equally as large as the present one. The introduction, on "Surgical Diagnosis," is a most admirable article, and will well repay an attentive perusal. The author favors blood-letting in inflammation. The differential diagnosis of hernia is very clearly laid down; the author questions the justifiability of operations for the radical cure of hernia. Some of the illustrations are not as good as might have been expected in a work of the kind. On the whole the work is highly to be commended, and will no doubt be appreciated at its full value by the general profession.

DISEASES OF THE BLADDER AND URETHRA IN WOMEN by Prof. Alex. J. Skene, Long Island College Hospital. New York: Wm. Wood & Co. Toronto: Willing and Williamson.

The above work consisting of eight lectures delivered in the college class-room, with the addition of material collected from articles of various authors on the subject, will be found by students and

practitioners a valuable manual on the ailments treated, which are far more numerous than would generally be imagined, e. g., malformations of the urethra and bladder, functional derangements, irritability, paresis, ischuria and enuresis, anomalies of position, extroversion through urethra, organic diseases, urinary analysis and exploration, hyperæmia, hæmorrhage, cystitis, acute, chronic, catarrhal, croupous and diphtheritic. Etiology, pathology, symptoms and treatment. Neoplasms, cysts, tubercles and carcinoma, foreign bodies, vesico-urethral fissure, hypertrophy and atrophy. Diseases of the urethra, neuroses, vascular tumors, dilations and dislocations of urethra, prolapse of mucous membrane, foreign bodies, &c., &c. In addition to the sterling practical matter in which this work abounds, we have the advantage of illustrations admirably executed, particularly in the chapter on urinary analysis. The author has evidently striven to render the subjects interesting both to his auditors and readers; his style is perspicuous, the didactic merged into the colloquial, without repetitions. The volume contains 360 pages, printed in bold, clear type, neatly bound in cloth. We can recommend it as a most comprehensive work on the subject.

CONTRIBUTIONS TO OPERATIVE SURGERY AND Surgical Pathology. By J. M. Carnochan, M.D., New York: Harper Bros. Toronto: Willing & Williamson.

We have received parts iv and v in continuation of this work, of which the former parts have already been noticed in our columns. The subjects treated of in that now before us are "Shock and Collapse" and the "Primary treatment of Injuries." The author discusses these subjects in a most exhaustive manner, and presents many valuable suggestions. The work is well executed, in quarto form, and published in quarterly numbers. Price \$1 each.

PRACTICAL SURGERY: Including Surgical Dressings, Bandaging, Ligations and Amputations. By J. Ewing Mears, M.D., Demonstrator of Surgery in Jefferson Medical College, etc., etc. With 227 illustrations. Philadelphia: Lindsay & Blakiston. Toronto: Hart & Rawlinson.

This is a very convenient little work of reference for the student or young practitioner. The illustrations are very good, and the descriptions in the text clear and explicit.

LECTURES ON LOCALIZATION IN DISEASES OF THE BRAIN. By J. M. Charcot, of the Salpêtrière Hospital, with 45 plates. New York: William Wood & Co. Toronto: Willing & Williamson.

To the readers of the *Lancet* no commendation from our pen, of any work bearing the name of the illustrious author of the above-mentioned treatise, can be called for, to ensure its welcome reception. *Charcot's* present contribution to the knowledge of *Brain Diseases*, is comprised in twelve concise and highly instructive lectures, which we venture to say will be read with unquestioned profit, by every member of our profession who is anxious to obtain a clear understanding of this department of medical science. Where all is excellent, selection of particulars must be embarrassing; yet we venture to express the opinion that the sixth lecture, on *Arterial Circulation in the Brain*; the 7th and 8th in continuation of this subject; the 9th, on "Isolated lesions of the Gray Ganglia"; the 10th, on "Crossed Amblyopia and Lateral Hemiplegia," will well repay perusal. Nay, indeed, we rather should say, they will repay, and they must require for their full understanding, repeated perusals. The following extract from lecture 8th, we offer as an illustrative specimen.

"Hemiplegia, dependent upon alterations confined to the gray ganglia, is generally transitory, passing, lightly marked, not indelible, and in any case is at first comparatively benign. It is understood that in formulating this proposition, I remove all complications capable of greatly modifying the picture; such, for example, would be the eruption of a hemorrhage, however small, into a ventricular cavity. Grave symptoms, such as *early contractions*, or *epileptiform convulsions*, almost necessarily ensue in such cases, and more or less rapid death is generally the necessary consequence of such complication."

We are very sure that in the rich field of observation presented to *Mons. Charcot* in the *Salpêtrière*, he must have encountered a very large proportion of cases presenting "complications capable of greatly modifying the picture" of the "transitory passing, lightly marked, and not indelible Hemiplegia," alluded to in the outset of the above paragraph—and we are very doubtful if, in any case of *Hemiplegia*, however apparently trivial in its inception, it would be discreet in the attending

physician, to venture on a diagnosis, or prognosis, excluding the incursion, or possibility, of "modifying complications."

CLINICAL DIAGNOSIS: A Hand book for Students and Practitioners of Medicine. Edited by James Finlayson, M.D., Glasgow Western Infirmary, with 85 illustrations. Philadelphia: H. C. Lea. Toronto: Willing & Williamson.

The utility of works on clinical diagnosis cannot be overrated. It is common to find a student or even sometimes a medical practitioner, who fails to apply the knowledge he actually possesses, from a want of the art of examining the patient thoroughly. This work endeavors to give the assistance needed, by supplying carefully selected data in a condensed form, by submitting accurate methods of investigation, and by pointing out probable fallacies, etc. Different portions of the work have been written by different persons. Dr. Samson Gemmell has written the part on "Medical Diagnosis;" Dr. Stephenson "Female Disorders;" Dr. Coats "Diseases of the Throat;" Dr. Robertson "Insanity;" and Dr. Gairdner "Physiognomy of Disease."

THE AMERICAN JOURNAL OF OTOTOLOGY. A quarterly Journal of Physiological Acoustics and Aural Surgery. Edited by Clarence J. Blake, M. D. Price, \$3.00 per annum. New York: W. Wood & Co.

ELEMENTARY QUANTITATIVE ANALYSES. By Alexander Classen, Royal Polytechnic, Aix-la-chapelle, translated by E. F. Smith, A. M., Ph. D., University of Pennsylvania. Philadelphia: H. C. Lea. Toronto: Hart & Rawlinson.

The above work has been adopted as a textbook in the laboratories of nearly all the German Universities. It has also had considerable circulation among practical chemists.

DISEASES OF CHILDREN. By E. Ellis, M. D., of the Victoria Hospital for Sick Children. Third Edition. New York: Wm. Wood & Co.

This is the second volume of Wood's Library of Standard Medical Authors, and is really a marvel of cheapness. It is a 200 page octavo volume, well bound in cloth, and printed on good paper, for the nominal price of \$1.00. The work itself is already well and favorably known to the profession as a useful, practical work on the diseases of children.

LEONARD'S PHYSICIANS' POCKET DAY BOOK. Published by C. H. Leonard, M. D., Detroit, Mich. Price \$1.00; name in gold-leaf inside, \$1.25.

This is a very compact and convenient visiting list. It contains no printed matter, and presents a simple method for keeping a physician's account in such form as to reduce the labor of book-keeping to a minimum.

MANUAL OF PHYSICAL DIAGNOSIS. By Francis Delafield, M. D., and Charles F. Stillman, M. D. New York: Wm. Wood & Co. Toronto: Willing & Williamson.

This manual is intended, as the author says in his preface, for the use of those who have to teach and to learn the art of physical diagnosis. The text is very concise, and contains blank leaves so that it may be used as a note-book as well as a guide. The illustrations consist of a series of superimposed plates, the superior of which represent the exterior of the chest. Successive removals of these plates reveal the structures reached from without inwards, and give a very clear idea of the topography of the parts.

LECTURES ON PHYSIOLOGY. By James T. Whitaker, M. A., M. D., Professor of Physiology and Chemical Lecturer in the Medical College of Ohio, etc. Illustrated; pp. 288. Price, \$1.75. Cincinnati: Chancy R. Murry.

This work is intended more as an introduction to the subject of physiology, than as a text-book on the subject. It is written in a very interesting and attractive style, and will be of advantage to those commencing the study.

NOTES ON THE TREATMENT OF SKIN DISEASES. By Robert Liveing, A. M., M. D., F. R. C. P., London, Middlesex Hospital. Fourth Edition, revised and enlarged. New York: Wm. Wood & Co. Toronto: Willing & Williamson.

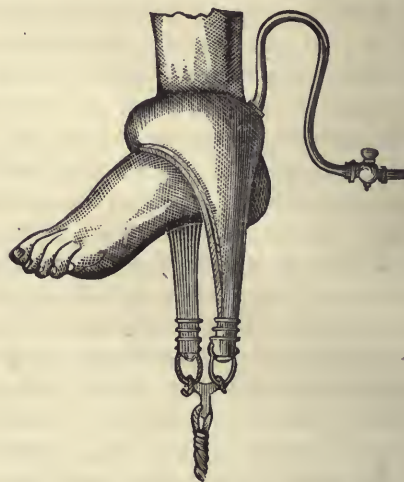
THE JOURNAL OF PHYSIOLOGY.—We have received the first five numbers of this Journal, edited by Michael Foster. The papers, as might be expected, are excellent, and the work will be of value to all who are interested in the study and progress of physiology. It is published by McMillan & Co.

Canadian Illustrated News for Jan. 4th, contains among other things, a very handsome sketch of Bear River, or Hillsburg, N. S., and another of Almonte, Ont.; also portraits of prominent Canadians.

New Instruments.

INDIA RUBBER EXTENSION APPARATUS.

This apparatus as may be seen from the wood-cut, consists of a vulcanized rubber bag which is inflated with air through a rubber tube like a col-pyurter, and retained by turning a stop-cock.



To the lateral appendages of the bag are applied the weights used for the purpose of extension. The apparatus, which is the invention of Dr. Kaufman, was on exhibition at the Paris Exposition. The advantages claimed are simplicity and ease of appliance, but its greatest advantage is the fact that the pressure is exerted equally on the entire circumference of the foot. The appliance is well borne by patients.

Marriages & Deaths.

On the 9th of Dec. 1878, A. S. Campbell, M. D., of Brainerd, Minn., to Miss H. O'Connor, of Ottawa.

On Tuesday, December 31st, J. Saunders, M.D., M.R.C.S, Eng., of Kingston, to Catherine Marion, eldest daughter of A. S. Bristol, M.D., of Napanee.

On the 21st ult., William J. Wilson, Esq., M.D., of Stouffville, Ont., to Miss Mary Ann O'Neill, of Toronto.

In Quebec, in Dec., 1878., Dr. J. B. Meilleur, in the 83rd year of his age.

In Montreal, on the 18th of Dec., J. A. Desloges, M.D., of Pembroke, aged 31 years.

At Berlin, on the 4th ult., J. P. Jackson, M.B., aged 36 years.

. Notices of Births, Marriages and Deaths are charged fifty cents each, which should be forwarded in postage stamps with the communication.

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

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Original Communications.

CASE OF OBSCURE UTERINE DISEASE.

BY C. W. COVERNTON, M. D., M. R. C. S., ENG.,
TORONTO.

(Read before the Toronto Medical Society.)

As a rule we are more frequently prompted to record our successful cases than our failures; it may, however, be considered as open to doubt whether a report of the latter would not, in a large majority of cases, be more fruitful in pointing out difficulties of diagnosis, than the satisfactory recital of the former. It is at the bed side that we can best study disease; there we see it in its true colors, stripped of the misleading shades by which it is so frequently disguised in text-books, and it is there we too often have occasion to recognize the difficulty in distinguishing it. It is only by strictly limiting our conclusions to such as may be fairly deducible from facts, that we can escape the error of substituting vague hypothesis. The mere acquisition of facts, however, as gathered by careful observation, will not suffice for an *ex cathedra* pronouncing of the true nature of the disease. For that, nothing but a post mortem examination can be held conclusive. This opportunity for verifying little beyond speculation as to cause, in the case which I submit to you, and invite discussion upon, was unfortunately denied me. I have therefore nothing but my observations at the bed side to relate, and these, perhaps, without an exact knowledge of the seat and nature of the disease, amount to little. We all recognize the importance of studying well the external characteristics of disease, and use our utmost endeavours to be guarded against illusions and errors in difficult cases. When, therefore, doubt exists as to the exact nature of the degeneration in question, it is very much to be regretted that a morbid sentiment precludes the only method for setting at rest con-

jecture. In submitting this case I have then nothing more to lay before you than, previous history of patient, hereditary tendency, habits, the permanent and general state of functions during health, and the condition I found her in at first visit. I am better able than usual in the recital of cases to speak to previous history, having had the pleasure of an intimate acquaintance from a period shortly after my patient's marriage, some eighteen years ago. The lady menstruated at fourteen; menstruation from the first was attended with very great pain; at sixteen she married, the dysmenorrhœa continuing persistently, and on no occasion was there interruption to its monthly regularity until within the last three years, when the excessive pain and scantiness of menstrual fluid was succeeded by irregularity of intervals, and discharges so profuse and exhaustive as to confine her to the bed or sofa for a week. Both her father-in-law and brother-in-law were physicians of great repute, and residing near to her; but viewing this change from great regularity and suffering, to uncertainty of periods, and profuseness of flow, as the approach of the menopause, she only within a year, if I am correctly instructed, mentioned her condition to her brother-in-law. Within the last few years she had become stout, but with no disproportionate abdominal development that I am aware of, nor do I think that she fancied such to be the case. She had a vague, undefined dread of uterine disease, but I am not aware whether it had its origin only from the belief that her mother's death had resulted from disease of that organ, or whether the idea proceeded from any occasional wandering pains in that region. Her face had become fuller than ordinary, and the complexion somewhat cachectic; the large loss of blood at intervals of six weeks or two months would, however, account for this. Patient was of a nervous temperament, with acute sensibilities; habits active; until within a few years riding much on horseback, latterly had become timid and discontinued that form of exercise, but walked a good deal; functions of the body normal; appetite good; the principal trouble constipation. This is about all of the general history that I am acquainted with. I have recently learned, that last autumn on returning from the sea side there was œdema of the lower extremities. A week before the illness that most unfortunately proved her last, she came on a visit to intimate

friends in this City—some seven or eight weeks having elapsed since her last severe flowing—in excellent spirits, and beyond the coloration and fullness of the face, apparently in good health. The day before the seizure she walked without complaint of fatigue, by her reckoning, four miles. On the following morning about five o'clock she was awakened by the striking of the alarm clock that had been set for that early hour in consequence of the gentleman in whose house she was visiting leaving by an early train; at first awakening, frightened by the noise, but quickly realized the occasion, and after listening attentively, as she fancied she heard no one stirring, got out of bed to call one of the servants. A few moments after returning to bed she experienced the sensation of a gush of fluid, saturating not only the night-dress but under-sheet. On lighting the gas, she discovered the nature of the discharge to be sanguinolent serum, shortly afterwards followed by extrusion of clots. This serous discharge, with more or less of coagula continuing, about 9 a. m., a medical man resident in the immediate neighbourhood was sent for. From the history given him and examination of coagula, he pronounced it a case of hydatids, enjoined strict rest, ordered an opiate, and advised that on her return home an examination should be made by one of her two relatives in the profession, with a view of determining the condition of the lining membrane of the uterus. The discharge of serum and coagula continued all that day and night, as also the following. On Wednesday afternoon the husband arrived in the city, and being informed of the opinion given of hydatids as the cause, he brought me at 6 p. m. some coagula recently extruded, for examination. I could make out nothing but clots, pure and simple, but I promised to procure a microscopic search for hooklets, as also a report from Dr. Zimmerman. At the same time I mentioned to him that the general, although not universal, consensus of medical belief in the present day was entirely opposed to the existence of hydatids without either a true or a false conception, and from what I knew of his wife's history, I did not think either probable. That true hydatids or cysts resulting from the acephalocyst were very rare, and that the ordinary hydatids met with were supposed to be due to the degeneration of the chorion of a true or false conception. That the only probable causes I could

at that time call to mind of the large watery discharges he described as attendant on the hæmorrhage would be either from sarcoma, vegetating epithelioma or glandular polypus, proceeding from either the fundus, sides or cervix of uterus, and concurred in the opinion given by the medical gentleman first sent for—that as soon as possible a careful exploration of the interior of the organ would be necessary. At the husband's request, I went with him to visit the patient, having previously an interview with the first medical attendant. I found her pulse very rapid and unequal, countenance blanched and swollen, no pitting on pressure. A porcelain slop vessel two feet in height was filled with napkins that had been saturated with the discharge during the day; on opening them out they contained numerous coagula, varying in size from an almond to a walnut. On making a vaginal examination I found the ostium extremely sensitive, patient shrinking from the touch, vagina filled with coagula, the os high up, barely admitted the point of the finger, the lips soft and and slightly swollen, no appreciable thickening or hardening of cervix. After clearing out coagula, I carefully packed the vagina with cotton wool, removed the pillow from her head, ordered an opiate and a mixture of quinine and iron to be commenced early in the morning. As in making the vaginal examination I found the rectum to be filled with hard scybalous masses, I directed the bowels to be opened by a soap and water enema before my visit the next morning. Following morning, removed tampon, which was slightly offensive, and had a hot douche applied to the vagina and os, by means of a fountain syringe; reapplied tampon, and directed four grains of Quinine and twenty of Tr. Fer. Chl. every three or four hours. Visited her again in the evening; pulse better, diminution of discharge. On removal of tampon, did not consider it necessary to re-apply. On Friday morning was informed she had slept well, and had taken a good breakfast. Pulse down to 98, more regular, fewer coagula, and serous discharge slightly lessened, although a necessity for frequent change of napkins yet existed. Patient was cheerful, and requested that a pillow under the head should be allowed. As the improvement was marked I told the lady she was visiting, I should not return in the evening unless sent for, but left strict injunctions that I should be instantly informed of any aggra-

vation of symptoms. Whilst I was there the hot uterine douche was repeated for four or five minutes, bringing away a small quantity of clots that from their appearance had some time previously been expelled. Discontinued Quinine and Iron, and substituted Fluid Ext. of Ergot and Iron, alternately with Turpentine every two hours. On visiting her early on Saturday morning, found a less favourable state of symptoms. Learnt that she had taken her nourishment well during the day, had gone to sleep early in the evening, and slept quietly until a little past midnight, when she awoke faint, shortly after complained of being sick and vomited partly digested food. A messenger was about being sent for me, but as the patient expressed a great sense of relief, and shortly after fell into a tranquil sleep, I was not summoned. Pulse 120, small and irritable, bed clothes beginning to have an offensive odor. Had the hot douche applied, and after removing a large quantity of clots, made a careful vaginal examination. The os would not as before admit more than the point of finger, uterus mobile and not apparently very much enlarged, no great fullness or tenderness in the hypogastric region, quantity of serous discharge increased. Soaked a large quantity of cotton wool in a solution of Ergot and Iron, and with it firmly packed vagina. As the stomach had become irritable and I feared a return of vomiting, ordered frequent nutrient enemata with brandy, and gave brandy and ice by mouth, a handkerchief well soaked with Spts. Ammon. Aromat. to the nostrils. Returned at 2 p. m., removed tampon and replaced it with one soaked as before; the removed tampon was more offensive than for the short time of its impaction it should have been, pulse reduced in frequency, patient cheerful and said she felt better. At 7 p. m., met in consultation the lady's father-in-law, shortly after his arrival with the husband who had been telegraphed for in the morning, patient had a somewhat prolonged fainting fit. Detailed to the doctor the treatment pursued, and my fears of some degeneration of uterine lining; mentioned that I had in the morning ordered a solution of Persulphate of Iron one in six, that with his sanction I would inject into the uterine cavity, the use of which, however, I had delayed until his arrival, as without counsel and in ignorance of the exact condition of the tissues, I was unwilling on my sole responsibility to risk.

The view of possible danger was concurred in by this long experienced practitioner, and the treatment of Ergot, Iron and Turpentine continued, changing only at his desire cold spirit lotions to the abdomen for the hot douche. The foot of bed was elevated a couple of feet, pillow again removed, and as an opiate at night thirty drops of Battley's Liq. Opii Sedativ. Patient passed a fair night. In the morning, pulse continuing at 120 and condition of stomach threatening, brandy only was given by mouth, administering the Ergot in increased quantities, with ten grains of quinine and nourishment by rectum. The previous evening I had suggested large doses of Acetate of Lead, but my colleague preferred a continuation of the Ergot, and in view of the threatened vomiting for the last twelve hours, I did not feel inclined to urge its use. Bottles of hot water enveloped in flannel were applied to feet and between the legs, and aromatic ammonia to the nostrils. The patient was calm and collected, neither hallucination of senses, nor delusion of mind, complaining only of noises in the ears and an occasional sense of faintness. In the morning, as the Ergot and Quinine occasioned only slight evidences of uterine contraction, I injected by hypodermic syringe forty drops of Fluid Extract of Ergot; this produced slight contractile pains; as, however, the serous discharge with clots with but little diminution persisted, I repeated the injection in three hours. The discharges had now become highly offensive, notwithstanding the frequent removal of tampon and uterine douche. Pulse 130, small and irregular. Remained with patient until 2 a. m., at which time the evidences of contractile pain were sufficiently marked to afford some hope of finding the condition of symptoms better in the morning. Unfortunately this hope was not destined to be realized, as on the next visit there were unmistakable evidences that a fatal termination was pending. Continued the administration of brandy in large quantities, as also nutrient enemata, but all in vain. The patient succumbed at $\frac{1}{2}$ past 1 p. m. Immediate cause of death I apprehend to have been blood poisoning, due to the introduction into the circulation of morbid or putrid matter, possibly complicated with embolism. Temperature of lower extremities continued normal within an hour of death; failed in the upper extremities earlier. It may be urged that in this case a more careful exploration of the

size and mobility of the fundus of the uterus should have been made by bimanual examination, and that either by Barnes's dilators or the slower process of laminaria or sponge-tent, the cervix should have been sufficiently dilated to permit internal exploration, to which I would reply that in my judgment the patient was too weak from the first time I visited her, to have made either of these procedures safe or justifiable. Further, I would remark⁷ that abdominal palpation gave no evidence of any greatly increased size of the uterus, certainly not of that increased volume that the presence of hydatid masses would necessitate. The patient and husband, moreover, remarked to me that frequently within the last two years, at what was conceived to be irregular menstrual periods, she had lost fully as much blood, but without the large watery discharge. I had therefore the first two days no reason to anticipate that the means employed would prove ineffectual in arresting the flux. The question arises, what was the cause of this persistent discharge of blood and serum? I at once exclude hydatid cysts, whether true hydatids due to the presence of acephalocysts, or uterine hydatids, as causal, for two reasons; the first that the volume of the uterus was quite insufficient for entertaining such an idea, and the cause of their existence assigned by the majority of modern writers on the subject absent, namely either a true or a false conception; the second that Dr. Zimmerman's microscopic report of the coagula I submitted to him was to the effect that no evidence was afforded of hydatid or hydatiform structures, merely blood, epithelium, leucocytes, and a few involuntary muscular fibres. Before, however, passing on to a consideration of other probable causes, this opportunity for enquiring into the invariable correctness of modern opinion that uterine hydatids can only proceed from the villi of the chorion undergoing a dropsical swelling, may by the Society be considered a fitting one. I will first briefly cite a few passages from the authors most impressed with the idea that hydatids can only be the result of a true or false conception, and then the opinions of writers dissenting from this view. Montgomery says on this subject—"Some maintain that they are not necessarily the result of conception, while others as strongly, and it appears to me, with much greater reason and truth, consider them the product of disease attacking the

ovum." Beck, in his Jurisprudence, says—"I will repeat again what I have before endeavoured to prove by a reference to the best authorities, that there is no case on record where hydatids of the uterus have been found independent of conception." Baudeloque and Vogel express similar opinions. Desormeaux says—"The development of these masses of hydatids is more frequently, if not always, the result of conception." Velpeau's words are—"The mole and hydatids of the uterus being but the products of conception degenerated, give rise to the same phenomena as true pregnancy." Morgagni's view is the following—"This, therefore," speaking of the true mole, "cannot exist in virgins, nor as far as I know, that, in like manner, which might with more propriety be called a mola vesicularis or congeries of vessels, disposed after the manner of a cluster of grapes." Rokitsansky considers both moles and hydatids as degenerations of the ovum. Madame Boivin, in her work, entitled "*Nouvelles Recherches sur l'origine de la mole vesiculeuse, or Grossesse Hydatique*," announces, as the result of her observations, that hydatids in the uterus, in all cases, are the result of conception, originating in the filamentous processes springing from the external surface of the transparent membranes of the ovum. Fernel, axiomatically, says—"Nusquam visa est mulier molam sine mare concepissé." Burns thinks that hydatids and moles are never formed in the virgin state. Fodere considers true moles and hydatids are the result of intercourse between the sexes, and that those substances which are discharged from the virgin uterus are merely condensed coagula of blood which, of course, may form in the chaste as well as the unchaste. Meigs regards hydatids as depending upon a hydropic state of the villi of the chorion, which by a process of endosmose is able to convert them into cysts, and both moles and hydatids as originally true conceptions, but changed afterwards by some accidental diseased action. Thomas attributes hydatids to dropsical swelling of the villi of chorion. Playfair considers that sometimes hydatids result from the death of the ovum, and at others from obscure maternal causes, some blood dyscrasia, such as syphilis. He does not consider that they ever occur independently of conception. Graily Hewitt relates a case in which true hydatids originally formed in the liver had extended to the

peritoneum, and were about to burst through the vagina at the time of death. This occurred in an unmarried woman. Other cases of true hydatids forming in the uterus are recorded. The above cited opinions of writers, principally within the present century, affirming that hydatids cannot exist in the virgin state, may suffice. I now turn, as far as possible in order of succession, to authors whose views are in direct opposition. Ruysch asserts that uterine moles and hydatids have been found in females who never had any intercourse with the other sex. The Parliament of Paris, in 1781, decided that there were instances of girls, and even of nuns, who had produced uterine moles without any previous sexual connexion. Gardien, in his work, "*Traité Complet*," says—"Hydatids may be met with in girls as well as in women: however, although they are independent of sexual intercourse, they are much more frequently met with in women who have borne children, and especially when they have arrived at the turn of life." Denman says—"These have been supposed to proceed from coagula of blood, or portions of the placenta remaining in the uterus, and this opinion is generally true; but there is sometimes reason for thinking that they are an original production of the uterus, independent of such accidental circumstances, and sometimes the precursors of organic disease in that part." Sir Charles M. Clarke thus expresses himself—"It is probable that the existence of pregnancy is not necessary for the production of the disease. It has been believed to exist independently of this state; and perhaps a morbid condition of organized coagulating lymph may have the power of originating this disease, under certain circumstances, but what these circumstances are, is not known. Dr. Smith, in his "*Principles of Forensic Medicine*," says—"They may be found in females who have never had intercourse." Cruveilhier, in his article on hydatids, ("*Anatom. and Path. Gen.*") considers that they might be owing to "the introduction of unassimilated living molecules or germs into the blood from the alimentary canal, and circulated along with the blood to every organ of the body, until they became arrested in some part and there grew and multiplied. M. Dupuy arrived at the same conclusion with Cruveilhier. Dr. Blundell does not view conception as a necessary condition. Dr. Evory Kennedy says that hydatids may occur in virgins. Mr.

Douglas Fox, surgeon to the Derbyshire Infirmary, relates the particulars of a case where a large mass of vesicular hydatids was expelled from the uterus of a maiden lady where the hymen was unruptured, and of whose chastity there could be no suspicion. Dr. Ashwell, in his work on the Diseases of Females, says—"Now, while it may be granted that in the greater number of examples these productions originate indirectly from pregnancy, I am convinced such an origin is not universal." The cases already mentioned prove this, at least, so far as I can judge; they establish the fact, that vesicles so like the hydatids of the chorion as not to be distinguished from them by the eye, do very rarely grow from the diseased lining membrane of unmarried women and virgins. Dr. Ramsbotham inclines to the belief that hydatids may be formed in the virgin uterus, and thinks the membranous substance secreted in dysmenorrhœa very likely to lay the foundation for the disease. Dr. Andrews, in the *Glasgow Medical Journal*, relates four cases of hydatids. Two of them were in married women; the other two in girls of the ages of sixteen and seventeen years. In one menstruation had never occurred, and the hymen was entire. The advocates of pregnancy as the sole origin of vesicular hydatids will, of course, think these were examples of the true or acephalocyst form of the disease. Dr. Ashwell considers that the true hydatid or acephalocyst may form in the parenchyma, or walls of the uterus, in the same way that it grows in the liver or muscular tissue of other parts of the body. Mr. Witten, of Brighton, in the *Lancet* for Feb'y 1st, 1840, detailed a very interesting case of hydatid formation. On post mortem examination, a highly varicose state of uterine veins was seen at posterior surface of fundus beneath the peritoneum, constituting a rounded tumor. In the diseased part there was an opening containing a coagulum. This opening was proved to be the immediate cause of death by effusion of blood into the abdomen. A mass of hydatids protruded into the cavity of the womb, portions of the mass being firmly adherent to it. In the vicinity of this mass the lining membrane had degenerated in character, and was covered by patches of lymph. On removal of the adherent hydatids, it was found that the lining membrane was partly wanting, and that masses of hydatids were imbedded in the structure of the organ. These, certainly were very different

from vesicles generated in the chorion as the result of a blighted conception. In the Guy's Hospital reports, volume 7, page 300, I find a case of hydatid cysts voided during the act of micturition, reported by Mr. Berkett. The patient expressed great pain in lumbar region for several days, expelling a few at every time of urinating. On the occasion of his first consulting Mr. Berkett, he had passed sufficient to fill a half pint mug. After a long search, Mr. B. by the microscope, discovered a single tentacle of the echinococcus, and something which had the appearance of the entozoon itself. Urine obtained by the catheter contained the debris of the hydatid cysts and blood discs. After a most careful examination of the man's abdomen and lumbar region, Mr. B. was quite unable to detect any tumour or enlargement, or the slightest indication of anything abnormal. In my practice, extending over forty-two years, I have had four cases of uterine hydatids—three in married women; one in a young girl of seventeen, reputed to be a virgin; the correctness of the assumption may have by some been considered as open to doubt, but it was at any rate believed in by the medical man who consulted me in the case. In all of these cases but one, there was frightful hæmorrhage attendant on the expulsion. The exception occurred in a married lady, who had retained me to attend her in her confinement, which she expected to occur in two months from the time I was engaged. Shortly after, entertaining a fear that all was not right, I was requested to visit her; found that for some time she had been troubled with hydrorrhœa. On placing my hand on the abdomen I failed to discover the hard uterine tumour; and on vaginal examination, could find nothing but fluctuation. Very shortly after, her cherished hopes of maternity, as in Harvey's widow, were dissipated. "*Donec tandem omnis spes cessaverit in aqua.*" In this case a very large quantity of fluid was voided with but few cysts, the hæmorrhage trifling. The lady had a family subsequently, and is now a happy grand-mother. But to return to the question whether hydatids can be generated in the uterus in the virgin, or the widow. If the supporters of the contagium vivum theory are correct, the introduction of these germs or bacteria into the system must be through the blood; if so they must be circulated to every tissue and organ in the body. Why should they not,

therefore, be found in the mucous membrane of the uterus or bladder, a nidus equally favorable for their development and growth as in the parenchyma of the liver or kidneys. Why should the villi of the chorion be the sole source of uterine hydatids? In my investigations on this subject, I find in the works of various authors who believe the blighted ovum alone to be the source, nothing beyond mere negation; no attempt to demonstrate why, in the nature of things, in one tissue alone these organized growths have their habitat. The range for discussion may be wide, but you will, I believe, gentlemen, on this as on a previous occasion, consider it of sufficient interest for lively debate. Having, for reasons assigned, excluded hydatids as a probable or possible cause of the symptoms in the case on which this paper is founded, I pass on to the various other degenerations that might fairly be viewed as factors. The most likely I consider as causations would be either tubal dropsy, or, as it has been of late termed, hydrosalpinx, fungoid growth from mucous membrane of uterus, vegetating epithelioma of sides of fundus, or glandular polypus. These I will now advert to in the order named. The assumption of hydrops tubarum would undoubtedly account for the very great watery discharge; other evidences, however, I consider to have been wanting. Robt. Peaslee, Scanzoni and Kiasch describe the tube as occasionally attaining the size of a child's head. Peaslee reports a case, confirmed by autopsy, where a dropsical tube which had been twice punctured as an ovarian tumor, was found to contain eighteen pounds of fluid. Even in cases where the tumor is very much smaller, and diffused in sausage-like form, its presence can hardly escape the notice either of the patient or of her friends. In the instance under discussion no local enlargement was suspected; the lady had become stout, but no idea of either uterine or ovarian enlargement was entertained. Had tubal dropsy been the cause, I should have recognized in the frequent vaginal examinations, a soft, fluctuating tumour in the Douglas cul de sac, which most assuredly was not present. There can therefore, I assure you, be no question of the propriety of ruling out of possible causes, tubal dropsy. The second, fungoid growth from mucous membrane of uterus, from one point of view, namely persistent hæmorrhage, might be considered as a probable

factor; but neither in my own practice, nor in the writings of Ramsbotham, Churchill, Montgomery, Ashwell, Meigs, Playfair, Thomas and others, can I find records of an amount of watery discharges constantly draining as was the most noticeable feature in this case. Dr. Ashwell, in the article on Menorrhagia, says—"Protracted and dangerous hæmorrhages, whether arising from uterine congestion, from sub-mucous tumour, polypus, or from disease of the mucous lining, is by no means easy to make out. Klob, in describing vascular growths occurring on mucous membrane of uterus, thus writes—"These puffed elevations are red and shiny, velvety and smooth; on scraping them with a knife, a milky fluid exudes from them, which under the microscope, exhibits nothing but the glandular epithelium of the uterus, sometimes transparent vesicles and colloid bodies of varying size." In a post mortem examination of a woman 36 years of age, who had died from metrorrhagia, he was unable to find anything except such a vegetation of mucous membrane about one inch thick, and one and a-half inches in diameter. Dr. Thomas says—"It is astonishing how profuse and constant a flow will sometimes result from very small and insignificant vegetations. Some years ago, I had an opportunity of examining, post mortem, a patient of Dr. Louis Elsberg, of New York City, of whom this history was given. The patient had suffered for years from menorrhagia, and occasionally from metrorrhagia. On many occasions Dr. Elsberg had resorted to the tampon, and on several occasions had plugged the cervix with considerable force to prevent death from excessive flow. Upon inspection, I found nothing to account for the condition but three fungous projections, which were situated just above the os internum. Unfortunately they were destroyed before they were examined by the microscope. It might be suggested that some other cause might have existed, but none such was discovered on careful investigation. The uterus, ovaries and pelvic tissues appeared to be in a perfectly normal condition." If we assume that the case I now submit to the Society was probably identical with Dr. Elsberg's case, there still remains the difficulty of accounting for the large watery discharge, unless we assume it to have been a separation of the serum of the blood from the crassamentum, a theory scarcely consistent with our knowledge of the retardation of this

process while it is in contact with living surfaces. The experiments of Simon, Thackrah, Henson, Valentin, and other physiologists, all go to prove that blood will retain its fluidity for a very long time in the body; this view can hardly, therefore, be accepted as a reasonable one. The third possible cause will be vegetating epithelioma of sides or fundus of uterus. Ashwell and other writers describe the most frequent seat of this form of uterine disease to be the cervix, but it is admitted by Thomas; Klob, Virchow, and other German pathologists, that these tumours may grow from the mucous membrane of body and fundus of uterus. Virchow believes that some tumors resembling in every outward respect vegetating epithelioma are really non-malignant papillomata. The difference between these and the real epithelioma is to be found only by microscopic examination of the submucous tissue; in the one case it is healthy, in the other diseased. "Whilst," says Klob, "in the benign form simply an arborescent epithelium is covered by a more or less thick layer of basement epithelium, in the cancrioid tumor, so-called cancrioid alveoli are developed in the substance proper of the tumor, and also in the parent tissue, which is affected by hyperplasia of the connective tissue." Dr. Thomas, in describing this affection, says—"The disease may pass through its period of inception, and make considerable progress towards a fatal issue, without developing any symptoms which attract the attention of the patient—as only slight leucorrhœa and hæmorrhage may exist, which may have been passed over as trivial circumstances, not deserving treatment or investigation. Menorrhagia and metrorrhagia may exist even before ulceration has occurred, resulting from the congestion of the mucous membrane. Pain and tenderness are not nearly so constant and severe as would be supposed, and they may both be entirely absent. Ichorous, watery, and grumous discharges generally mark the advance of the disease, the second exhausting the patient by the draughts made on the serum of the blood. The third creates fœtor, and sometimes results in septicæmia, for the material giving color and odor to the flow is a putrilage formed by the detritus from decaying uterus." This description from Thomas's work on Diseases of Women, the most nearly approximates to the symptoms in the case under consideration. The discharge being at first inodorous would naturally

be mistaken for leucorrhœa, and the hæmorrhages my patient at irregular intervals had been subjected to, viewed, as she informed me, as the approach of the menopause. Dr. Ashwell says of this disease—"The progress is exceedingly variable. In some constitutions its exhausting effects are long being realized, the losses being repaired very quickly; the appetite does not fail, the strength holds out extraordinarily, and it is long before emaciation occurs. It differs widely from corroding ulcer and cancer in the absence of pain and attendant evils, and the discharge has scarcely any fœtor. Thus, while death in one disease (cancer), is often preceded by suffering which creates a desire for its occurrence; in cauliflower excrescence (vegetating epithelioma), its approach is gentle, and life is gradually and almost painlessly extinguished."

In view of the general symptoms of this case, both at last seizure and during the previously irregularly occurring hæmorrhages, mistaken, I am inclined to think, for menorrhagia, the prodroma would seem to tally with the supposition of a vegetating epithelioma. To this, however, two objections may possibly be urged. The first, that there was no sufficiently distinctive history of cancerous diathesis; the patient having only a vague idea that her mother's death had been caused by such a disease. With the view of either confirming or negating this opinion, I addressed a letter shortly after the decease of my patient to the physician who had attended, or was said to have attended her mother in her last illness, requesting as a favor that he would inform me whether there was any ground for the belief of hereditary cause in the nature of his patient's ailment, but not having been honored by a reply, I am unable to lay before you evidence of hereditary tendency. The second objection that might be urged would be the absence of evidence in Dr. Zimmerman's microscopical report, of cancer cells. The natural outcome to this objection would be the question: are cancer cells so distinctive and unmistakable as to render their recognition all important for a correct diagnosis? I do not possess the intimate knowledge of metamorphosis and degeneration of tissues, to offer an opinion on this subject, and must limit, therefore, replies to such as I can gather from authorities within my reach. Muller, in his work on the nature and structural characteristics of cancer, remarks, "Carcinoma is no heterologous structure, and the min-

utest elements of its tissue do not differ in any important respect from the constituents of benignant tumors, and of the primitive tissue of the embryo. The elements of carcinoma are nuclei, cells, caudate corpuscles developed from cells, and fibres formed from caudate corpuscles. No other elements occur in benignant tumors. The gelatine yielding enchondroma and albuminous sarcoma, consist of cells. Sarcoma with caudate corpuscles contains the same elements as the corresponding form of medullary fungus. The gelatine yielding cellulo-fibrous tumor, the gelatine yielding tendino-fibrous, and the albumino-fibrous, are all like carcinoma, composed of fibres. The pigment cells of melanosis are repetitions of healthy pigment cells. The peculiar appearance of the white corpuscles in carcinoma reticulatum, and their reticulated arrangement, occurring as they do in but one form of carcinoma, do not warrant us in founding thereon any theory of the heterology of cancer." You may naturally remark, gentlemen, that these views bring us back to where we were before the microscope and chemistry were applied to the analysis of carcinoma, they certainly tend to impress the importance of a careful study of the general characters of the disease, and not to depend too much on the discovery of so called cancer cells. Possibly M. Muller, subscribes to the truth of the aphorism, "I was dogmatic at twenty, an observer at thirty, an empiric at forty, and now at fifty I no longer have any system." With regard to caudate corpuscles as a pathognomonic character of cancer, Schwann's opinions are decidedly adverse. He states that they are as frequently found in innocent as in malignant growths, that the external skin of the fœtus is entirely formed of caudate corpuscles, that they are also to be found in cellular tissue; that they are by no means peculiar to medullary fungus, often not existing in its substance, as frequently met with in non-carcinomatous, as in medullary growths. He considers them simply like germinal cells, an embryonic formation. A more recent writer, Rindfleisch of the University of Bonn, remarks on epithelial carcinomatous growths, "Were we to take into account every variation in consistency, colour and texture, we should find it difficult to get any two specimens of epithelial cancer, taken from parts of the cutaneous and mucous systems, which could be viewed as growths of an absolutely identical char-

acter, so great is the influence of the parent soil, especially in the case of epithelial cancer." Paget remarks, "The history of the development of cancers makes up some of the dark pages of pathology, and in many respects the origin of such tumors is confessedly mysterious. Their first beginnings are generally hidden, being deeply buried in the tissues, so that when a swelling manifests the possible existence of a tumor it is regarded with doubt in the first instance, and then by astonishment as well as by dismay at the rapidity of its growth." In such doubt, astonishment and dismay, we must recognize and acknowledge our ignorance.

The remaining degeneration to be reviewed as a possible cause of the group of symptoms offered in the case submitted to you is glandular polypus. I have, in the course of my practice, had many cases of polypus where the loss of blood was for a long time attributed to excessive menstruation about the time of change of life, the entire absence of pain preventing the patient from experiencing alarm, and consequently not advising her medical attendant of her condition; but in none of these cases, as far as my memory serves me, was there excessive watery discharge in addition to hemorrhage, presumably from their having been of a fibrous character, instead of the soft and cellular variety, admirably illustrated in the last edition of Thomas, page 532. The source of the hydrorrhœa is there sufficiently obvious, partly from the grape-like masses and partly from the mechanical obstruction to the escape of the menstrual blood, but no such blocking up of the cervix existed in my patient's case, and if a polypus existed it clearly had its seat either at fundus or sides of uterus. Dr. Gooch remarks that when hemorrhages from the uterus arise from a polypus, medicines are useless, and that the only effectual way to cure the hemorrhage is to remove the polypus. To this Dr. Thomas pertinently replies that lives have been sacrificed to just such an assertion, both in this and other diseases. I quote from his work, page 534: "When the young practitioner reads the brilliant record of an os dilated, an instrument carried to the fundus, a tumor removed, and a case of metrorrhagia cured, he feels almost culpable if he have a case under treatment and do not follow a similar course, and as he sees his patient's pale face every day demanding a cure, he is often resolved to run every risk to effect one. But he

who is familiar with this kind of practice knows that it in reality involves many dangers, and that successful cases have a proneness for creeping into literature which does not characterize fatal issues. I would be distinctly understood as not undervaluing the practice of dilating the cervix and removing intracorporeal polypi by instruments carried to the fundus. I merely desire to insist upon the fact that such a course is necessarily dangerous; that it should be undertaken only after a careful consideration, and that its proper performance requires skill and experience."

With these words of wisdom from one of the most eminent gynecologists of America, I most emphatically concur. There is too frequently an unjustifiable amount of rashness in uterine surgery, and this note of warning from a man of Dr. Thomas's vast experience should be held as no timid counsel, but the result of judgment matured by long practice. Success in professional life will have no tinge of doubt or pain in the retrospect, if every case is carefully studied and compared with the experience of the most eminent in the profession. Popularity may be acquired by a variety of means, but public favor is not likely to be retained unless the respect of the profession is secured, and this will scarcely be the case if recklessness more than caution is the characteristic of the practitioner, and the allurements of hypothesis indulged in, to the sacrifice of that ingenuous temper of mind which would prompt equally a detail of failures as a chronicle of successes. I must apologize, Mr. President and gentlemen, for the time I have occupied in enlarging upon a case in practice, that perhaps with reason might be considered as warranting nothing beyond succinct detail. There were, however, many features in it incidentally suggestive of variety of opinion, the expression of which by the members of our society cannot fail to be both profitable and interesting.

NOTE.—Since the reading of this paper, my friend, Dr. I. H. Cameron, has forwarded me the following extract from the proceedings of the St. Louis Obstetrical and Gynecological Society.

Dr. Boisiniere presented a specimen of the so-called hydatiform mole, and said that a medico-legal question may arise in connection with these cases, which always suppose pregnancy. Playfair remarks that true entozoa may form in the substance of the uterus, which, being expelled per-

vaginam, might be taken for the results of cystic disease; and if it happened to the unmarried, or to a widow, might give rise to groundless suspicions as to the patient's chastity. Hewitt has related one case, in which true hydatids, originally produced in the liver, had extended to the peritoneum, and were about to burst through the vagina at the time of death. This occurred in an unmarried woman. One or two other examples of true hydatids forming in the uterus are also recorded. A very interesting case is also related by Hewitt, in which undoubted acephalocysts were expelled from the uterus of a patient who ultimately recovered. A careful examination of the cyst and its contents would show their true nature, as the echinococci heads, with their characteristic hooklets, would be discoverable by the microscope. McClintock has pointed out that it is probable that unfounded suspicions might arise from the fact of a patient expelling a mass of hydatids long after impregnation. He remarks that a so-called hydatiform mole may be retained in utero for many months or years, or a portion only may be expelled and the residue may throw out a fresh crop of vesicles, to be discharged on a future occasion."—*St. Louis Courier of Medicine*.

ON FUNCTIONAL AFFECTIONS OF THE SPINAL CORD.*

BY H. M. MACKAY, M.D., M. R. C. S., ENG., L. R. C. P.,
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A rule that ought never to be overlooked in the diagnosis of disease, is to examine every system of the human body in detail, in order that the mind may be able, by a process of exclusion, to concentrate the attention more directly on any part or parts that may be found to be in an abnormal condition. In this mental review, there is no system that requires more careful attention and consideration than the cerebro-spinal, for its functions so influence and more or less control every other organ and system in the body that, however perfect in themselves, they may be made to simulate a diseased state by the irregular action of the nerves. The heart, that is organically perfect may, by nervous influence, be suddenly made irregular in its action; lungs that are sound and healthy

may by the same influence, as in asthma, be so embarrassed that the individual has to pant for breath; the circulation may be vigorous and the blood physiologically perfect in all its proportions, when some sudden excitement to the vaso-motor nerves, causes the whole frame to quiver, and the cheeks that were fresh and ruddy, to become ashy pale; the peristaltic action of the intestines have always been normal until some sudden intelligence has shocked the great sympathetic, and either constipation or diarrhoea succeeds. Examples might be multiplied to show that every function of the body is more or less under the influence of the nervous system, and that disturbance of its integrity, whether structural or functional, is almost invariably followed by abnormal symptoms which very frequently manifest themselves in remote organs. It is the intention of this paper to apply more particularly to a class of functional diseases of the spinal cord, which often simulate organic lesions of the same structure—two classes of diseases it is very important should not be mistaken the one for the other; as of the various active remedies that are most frequently employed against the one, some might prove extremely injurious against the other. An error in this respect might prove discreditable to the physician and disastrous to the patient.

During the last few years, I have met in my own practice and in that of my partner, Dr. Turquand, many cases that we regarded as corresponding to the class of affections which Dr. Hammond, of New York, in his "Treatise on Nervous Diseases," calls "spinal anæmia," and the results of treatment seemed to justify our diagnosis. Having these cases before me, I thought it a very easy task to prepare a paper on spinal affections. I had not proceeded far, however, in preparing material for that purpose, before I found difficulties looming up wherever I turned for information. C. E. Brown-Sequard, in his preface to twelve lectures delivered before the Royal College of Surgeons of England, says: "These lectures contain the results of the work of almost all my life, from the time I began to study medicine, twenty years ago, to the present, 1860;" and referring to diseases of the spinal cord, Erb of Heidelberg writing last year for "Ziemmsen's Cyclopaedia," says: "The diseases of the spinal cord have thus come to furnish a most attractive and interesting field for scientific

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research, and one most fruitful of important practical results; we can say that the progress made in its cultivation has been of late years extremely satisfactory. And yet it must be stated with emphasis, that we only stand at the beginning of a successful development of the subject, and that an extremely large amount of work remains to be done." When we examine a portion of the spinal cord, we detect in it nothing suggestive of its functions, as we do in some other organs of the body—apparently a homogeneous, inert mass; but physiologists have discovered and proved that it is not only the medium for transmission, but also centres assisting in originating the important and delicate functions of sensation and motion. They have also succeeded in assigning to each particular part of the cord its special function; and it is necessary to an intelligent apprehension of the diseases affecting the spinal cord, that the physician should have a somewhat clear idea of the complicated functions which it performs with such inimitable regularity. I know of nothing in nature more beautifully illustrative of design than the co-ordination of muscular action, when opposing forces act and react upon each other in the performance of intricate movements, and with such unerring precision that, in health, we are unconscious of their existence. There is not a movement of the body but is more or less due to nervous control. The sensations of pain, temperature, functions of absorption, secretion, excretion, and assimilation are all depending on the integrity of nervous force and action. The diseases connected with the cord, as might be inferred from that circumstance, are very numerous. So almost universally does nervous influence enter as a factor into the cause of most diseases, that medical diagnosis might be reduced, as chemistry is threatened to be, into one element; and should we happen to be in doubt (*which of course seldom happens*) we might conclude like some patients, when asked what is the matter? reply, "I think, sir, it is the nerves."

Since Sir Charles Bell, in 1811, published his celebrated little pamphlet, "An idea of the New Anatomy of the Brain," many excellent works have been written on the subject. It is impossible to do more in a short paper, than refer to a few of them. From those I have had the pleasure of consulting, I have gathered this fact, that very many of the symptoms of diseases—whether re-

ferable to the cord or other organs of the body, and often simulating organic lesions—are, in reality, the result of functional disease of the cord, and caused by reflex action, deficiency of quantity or deprivation of quality of the blood for its nourishment and repair; and usually characterized by tenderness in one or more points of the spine. It is not difficult to understand that undue exhaustion of the cord without an equivalent of repair, would be followed by the impaired performance of the functions of sensation and motion, and manifested by pain or spasm—pain being the usual signal of alarm by which mischief in other parts of the body is made known. We find the analogy of the effect of deficiency of blood in the cord, in the cerebral symptoms which follow ligation of the cerebral arteries. Authors are agreed that many of the protean manifestations of hysteria are due to spinal irritation, but there does not seem to be much unanimity amongst them in reference to a name for this peculiar condition of the cord, as will be shown by the following quotations. Dr. Turk, of Vienna, in an article in the *British & Foreign Medical Review*, speaks of "spinal irritation" as a purely functional derangement of the nervous system; calls it "neuræmia," and gives the cause as reflex action from diseased viscera, some deprivation influencing the ganglia of the posterior roots, or some morbid condition of blood circulating through the central axis. Sir James Paget, in an article in *Braithwaite*, discourses at some length on what he designates "nervous mimicry" of diseases of the spine; a class of cases often very puzzling to the physician. R. B. Todd, in the *London Lancet*, writes on "local hysteria," which he regards as "reflected nervous phenomena," and speaks of the very common symptom of pain immediately under the left breast, which in his opinion may almost invariably be attributed to a debilitating cause, as leucorrhœa, &c. Dr. Kennedy, in the *London Journal of Medicine*, has an article on functional affections of the spine liable to be mistaken for organic diseases. Gamgee, of Manchester, in writing on a disease which he calls "nervous debility," says: "Under the general and somewhat indefinite term, nervous debility, I may include cases in which either as a result of long continued bodily and mental exertion, or of undue excitement of certain cranial or spinal centres, or of a disturbed nutritive balance of the organism

generally; the individual becomes the seat of symptoms which indicate that the nerve centres are in an enfeebled condition, and especially, that upon very slight exertion they manifest the symptoms of fatigue. Such persons usually complain of deep-seated pain in the dorsal and lumbar regions of the spine, neuralgic pains of the limbs, especially of the legs, and sometimes twitching of the legs." Whenever in the spinal cord we have an interference with the balance of power, between exhaustion on the one hand and repair on the other, we may expect abnormal manifestations, as of pain and spasms. Brown-Sequard, in his work on "Reflex Paralysis," maintains that most frequently the spinal irritation, giving rise to reflex paralysis, starts as an outside excitation from some sensitive nerve, and quotes as illustrations, "paralysis of one arm, one hand, a few muscles of the face, the eye, the neck, the bladder, the rectum," &c., and observed as a consequence of an excitation of a sensitive nerve of animal or organic life, and resulting from such causes as teething, worms, some kinds of irritation of the womb, &c. Erb, in his work on diseases of the spinal cord (the ablest and most exhaustive treatise that I know of), devotes a chapter each to "spinal nervous weakness," "spinal irritation," and "spinal anæmia." Owing to the length that my paper has already reached, I will only allude to them cursorily. "Spinal nervous weakness," is characterized by subjective complaints, as pain in the back, quick exhaustion, shooting and tearing pains in the regions of certain nerves, cold hands and feet, &c. The name "spinal irritation" he applies to cases occurring chiefly in the female sex, and characterized by great irritability of the sensory functions with motor weakness and debility, pain in the back, and great sensitiveness of many spinous processes to pressure, and which are diagnosed by the great inconstancy of the symptoms, and a great variety in the localization and the apparent nature of the case, but which possess certain essential symptoms in common. "Spinal anæmia," as the name implies, is a diminution of the amount of blood in the cord from whatever cause. Hammond, of New York, disposes of the class of diseases referred to in a chapter on "spinal anæmia," and bases his observations upon a careful study of one hundred and twenty-seven cases occurring in his own practice. He regards them as being divided into two cognate

affections, and differing in symptoms according as the morbid action affects the posterior columns of the cord, or affects the antero-lateral columns; the former corresponding to what is usually called spinal irritation, but which he maintains should be designated "anæmia of the posterior columns of the cord."

From the authors referred to, and an almost endless list of names quoted by each of them in turn, together with my own limited experience, I am convinced that the symptoms of many of the obscure cases that we meet in practice are traceable to some irritation in the spinal cord, causing functional disturbance, and that it is of the greatest importance that they should be diagnosed from those structural lesions of the cord, of which myelitis may be taken as the type. An error in this respect would almost certainly lead to serious consequences. In mistaking and treating congestion of the cord for spinal anæmia, delay and exaggerated symptoms, but not necessarily permanent injury would result; reversing the order, and treating anæmia for congestion of the cord, there would be a great risk incurred of producing irreparable mischief, as this treatment would tend to increase rather than diminish the quantity of blood in the cord. Continued turgescence is almost certain to produce interstitial changes, and a consequent loss of function. The diseases most likely to be confounded with spinal irritation are angular curvature, congestion, meningitis and myelitis—diseases the treatment of which is very different. Generally speaking, patients affected with spinal anæmia are better in the morning than in the evening, the recumbent position favoring an increased supply of blood to the cord. Those therapeutic agents, as bromide of potassium, ergot of rye, belladonna, &c., that lessen the quantity of blood in the cord, invariably intensify the morbid symptoms of spinal anæmia; while they are effectually lessened in severity by remedies which produce hyperæmia of the cord. Patients who are subjects of spinal irritation are, as a rule, below par, in delicate health, and usually very sensitive, and the pain in the back is generally very superficial, is in fact a reflex excitation, conveyed through a cutaneous twig given off from each compound spinal nerve, and terminating immediately over the spinal processes.

In reference to the treatment of these functional

affections of the cord, there appears to exist a remarkable degree of unanimity amongst the authors that I have quoted, which is, in general terms, sustaining measures, stimulants, tonics, counter-irritation, and electricity. Due regard must be had to the casual indications, the habits and general condition of the patient, whether or not there is in operation any influence, subjective or objective, that is taxing too heavily either his physical or mental energy; whether the nervous susceptibility is acquired or constitutional. When the spinal irritation is the result of reflex excitation from some diseased viscera, as arteries, kidneys, &c., it is noticed that the spinal mischief appears subsequently to the outside excitation. The treatment in these cases must be pursued in the same order, and usually the spinal irritation subsides very speedily, after the cessation of the cause. When the irritation results from undue exhaustion, very often instead of deficiency of blood in the cord, there exists a passive congestion, the vessels of the cord having lost their resiliency, and, like food in the stomach of a dyspeptic, the blood is there as a source of irritation. In that case, we must endeavor to set the blood in motion, and restore tone to the vessels, for which purpose nothing answers better than counter irritation, as by hot water, or stimulating liniments and electricity. I had intended to close my paper by reporting a few cases which illustrate, in some measure, the subject that I have now endeavored to bring before this Association, but having already taken up a good deal of time, and not wishing to trespass unduly, I will finish with the following, copied from my case book.

Case.—Was sent for one night in March last about midnight, to see Mrs. B., a primipara, seven months advanced in gestation, who was suffering from paroxysms of pain simulating those of labor—intermitting and recurring at short intervals. She also complained of pain and numbness in the arms and forearms, so severe that at times she was forced to cry out. The patient was anæmic and had been suffering a good deal from neuralgic pains of the head. The symptoms of which she complained this night had appeared suddenly. I suspected the case to be one of threatened premature labor, but being a primipara, I avoided a digital examination. The condition of the arms, however, suggested that the symptoms might be due to some difficulty in the cord. On enquiring as to whether

or not there was tenderness in the spine, she replied in the negative; but, upon examination, I found great tenderness in the upper dorsal region, which when pressed upon, excited the spasms and pain. I directed a mustard poultice to be applied to the upper part of the spine, and gave the patient a quarter of a grain of muriate of morphia, the result was almost immediate relief. Next morning I found the patient very much better, and she continued so to her confinement, which occurred at the full term of gestation, when she was delivered of a fine healthy daughter.

TREATMENT OF PLEURITIC EFFUSIONS,*

BY A. MCKAY, M.D., L.R.C.S., AND L.R.C.P., EDIN.,
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The treatment of pleuritic effusions by means of operative procedure, has engaged the attention of the profession to a considerable extent of late, and it is now generally conceded, that when the fluid in the pleural cavity assumes a purulent character, that when the chances of rapid absorption is done away with, and the collection of fluid, by its local as well as constitutional effects, causes impairment of the vital functions, it is then the duty of the physician to resort to operative measures for relief. I will not take up your time in discussing the advisability of interference in cases of recent effusion, where the evidence is altogether in favor of its being serous in character, for such cases will always have to be decided by the circumstances of the case, and the urgency of the symptoms. For on the one hand we see cases where absorption takes place rapidly, and again we see almost instant relief from the withdrawal of fluid by mechanical means. It is in reference to the treatment of empyema that I wish principally to engage your attention.

Dr. Aitken, in his "Science and Practice of Medicine," published prior to 1869, remarks that if the fluid, after the first tapping, becomes purulent, an almost certain fatality attends such a change. Dr. Flint, in his "Principles and Practice of Medicine," states that if the pleural cavity be filled with pus, it will not be absorbed, but if

*Read before the County of Oxford Medical Association, Jan. 9th, 1879.

life be sufficiently prolonged, and thoracentesis be not resorted to, it will, sooner or later, make its way either into the air passages or through the thoracic walls. We also find by referring to European journals, that it is not uncommon to have unfavorable results in those cases. In fact one English publication asks whether we may not be compelled to go back to old ideas again (in view of the number of deaths), and consider thoracentesis a very dangerous operation, and only to be performed as a last resource. We find different methods advocated by the profession. In Guy's Hospital Reports for 1877, Dr. Goodhart strongly recommends a free opening at the ninth intercostal space, and the insertion of a drainage tube, in the majority of cases. Also repeated tapplings by means of an aspirator, and the attempt to exclude air from the cavity. Others recommend two openings, one high up and the other at the lower margin of the cavity.

The drainage tube, and local antiseptic treatment seem to be gaining ground, and I think we are indebted to a Canadian, Dr. Richardson, of Toronto, for its first introduction into practice in Canada. His case treated in 1869 is, at all events, the first recorded here, and I am glad to say that it proved successful. According to a number of writers on the subject, the great danger to be apprehended, is the admission of air into the cavity; but if you will consider for a moment the form of the chest, with a non-yielding external wall, and also the probability of adhesions, surrounding the contracted lung, more especially in cases of long standing, it would not only be unscientific, but positively injurious, to attempt the withdrawal of fluid, and at the same time prevent the entrance of air into the cavity. It is well known that after air is admitted, that it changes the nature of the pus, and it sometimes very rapidly becomes offensive. This change would be a serious objection, providing it would increase the liability to absorption, but we have every proof to the contrary. The exclusion of air is also recommended on the supposition that it will interfere with the expansion of the lung; but we know that atmospheric pressure is the same, whether internal or external to the walls of the chest, and it could not possibly offer any resistance to the expanding lung, unless the opening could be hermetically sealed, which, under the circumstances, would be a very difficult undertaking.

Again, if we attempt the exclusion of air for the purpose of facilitating the lung expansion, its place must either be supplied by fluid, or the expanding lung itself; but the attempt to rapidly expand the lung by means of a vacuum, might endanger the patient's life by forcible laceration of the adhesions or pleura. In cases of this kind the aspirator should never be used, under any circumstances, for the following reasons:—1st, It will not remove all the fluid in cases of long standing; 2nd, it will not prevent re-secretion of fluid; 3rd, its employment is attended with danger in recent cases, from the point of the needle coming in contact with the expanding lung; 4th, where the fluid is purulent the operation must be repeated, causing more inconvenience to the patient, besides the danger of piercing the lung, and in that way complicating the disease; 5th, the main object to be attained by its use, viz., the exclusion of air from the cavity, is not now considered necessary, for it is admitted on all hands, that the admixture of air with serous fluid, will not lead to its becoming purulent.

Case.—Mrs. H., aged 24; good family history; never had any illness until five months ago, when she suffered from pains in the right side, following confinement, with cough and shortness of breath on exertion. On February 9th, 1877, found patient suffering from constant hacking cough, frothy expectoration, with pain in the right side. Has had chills and night sweats; pulse, 120; temperature in axilla, 102°.5F. Pain increased by coughing, and patient can only rest on right side. On examination I found the whole of the right side of the chest dull on percussion, and below the third rib the dulness was absolute. Above the third rib, there was tubular breathing with increased vocal resonance. The left side, in front, was resonant, breath sounds tubular and respiration exaggerated. At the back, on the right side, there was absolute dulness, with the exception of a small space above the spine of the scapula, where the breathing was tubular. Below this point, there was no transmission of voice or breath sounds. On the left side, behind, there was increased respiration sounds, with resonance on percussion. The right side measured three-quarters of an inch more than the left, and there was flattening of the intercostal spaces.

On the 13th, after getting the patient well under the influence of brandy, I inserted a large sized

trocár and canula between the sixth and seventh ribs, midway between the centre of the sternum and spine, and withdrew about 160 ozs. of pus. A drainage tube was passed in through the canula, and the cavity washed out with tepid water. Thirteen inches of tubing was left in.

14th, Had a good night's rest, cough almost gone, temperature 100°. Removed 16 oz. of pus, and washed the cavity with a solution of carbolic acid, 1 in 40. Attached a rubber bulb to the tubing, which assisted greatly in withdrawing the fluid. I may state that, owing to the entrance of air, the pus, on the second day, became very offensive; but the rigors had ceased entirely after the first washing.

The case progressed favorably, and the discharge became less offensive and smaller in quantity until, at the end of sixteen weeks, it scarcely exceeded a drachm, and thinking it might possibly be kept up by the irritation of the tube I removed it, and allowed the opening to heal. The lung, at this time, had almost resumed its natural position, and was quite resonant to within a few inches of its base.

I heard nothing more of the case until the 16th of July following, or six weeks after removing the tube, when I found the old symptoms returning, and the cavity again partly filled with fluid. This time I inserted the drainage tube between the seventh and eighth ribs, and removed 50 oz. of very offensive pus. I followed the same line of treatment as before, but was very careful to leave in the drainage tube until the secretion had entirely disappeared. The patient is now quite healthy, with good use of both lungs.

Dr. Burt, of Paris, made a few remarks on diagnosis, showing the difficulty there is in some cases, in distinguishing it from solidified lung. When he was in doubt, he used a fine trocar and canula. He thought instead of danger resulting from wounding the pleura or lung with the trocar, good was done by promoting absorption.

Dr. Bucke thought there should not be much trouble in diagnosis.

Dr. Millman mentioned a case where empyema had been mistaken for phthisis, in a child seven years of age. The pus found its way into the bronchi, and escaped. Air entered the pleural cavity through the opening. The child eventually recovered.

To the question whether the disease recurred on

the same side, Dr. Hill gave particulars of a case in support of this view.

The President, Dr. Turquand, mentioned two cases where he and his partner, Dr. H. M. McKay, had drawn off the pus, used carbolic injections, but no drainage tube. Both cases recovered.

Correspondence.

UNPROFESSIONAL CONDUCT.

To the Editor of the CANADA LANCET.

SIR,—I was pleased to notice in the last number of your valuable journal that the Medical Association of the County of Oxford had adopted the code of ethics of the Canada Medical Association. I am desirous of knowing the contents of the above code, and I am of the opinion that a copy of the same might with propriety be furnished each school of medicine for the purpose of informing students on a subject now too much neglected. There is a regularly qualified medical practitioner in this village who attends cases of midwifery, five miles distant from his office, for a fee of two dollars and fifty cents—this, I presume, including the fee for the usual visit after confinement. Now, sir, such a state of affairs is, to say the least, discouraging to the prospects of those contemplating an entrance into the profession. I think such unprofessional conduct should receive the contempt it so richly deserves.

Yours, etc.,

A STUDENT.

Odessa, Feb. 15, 1879.

Selected Articles.

TREATMENT OF PROLAPSUS RECTI.

Dr. Basevi, in the *Wiener Medizinische Presse*, Sept. 15, 1878, (*Le Progrès Medical*), describes a plan of treatment of *prolapsus recti* in infants which has given excellent results.

When the intestine has protruded for the first time he cauterizes the mucous membrane lightly with nitrate of silver and returns the gut and employs an enema of alum and tannin in ice-water. If it is a chronic case, the prolapsed intestine is returned, and while the child is held in a position to prevent its again coming down, a bandage an inch in width is passed around the body from above downwards as far as the anus, drawn tight enough to closely approximate the buttocks, which prevents the recurrence of the accident. To prevent this horizontal roller from slipping, a double spica is

applied around each thigh and crossing on the back. At night a sheet of gutta-percha, softened and moulded to fit comfortably, is placed under the lower portion of the dressing to prevent it from being soiled by the discharges. The bandage is allowed to remain ten or fifteen days, since it holds the gut in position and does not interfere with defecation. If diarrhoea occurs an injection of alum or tannin is given twice daily, and in case of constipation appropriate enemata. Mr. Bryant, of Guys, operated in nearly the same manner upon a girl, æt. 4. June 25, under chloroform the mucous membrane was cauterized with argent. nitras., the bowel returned and a tampon applied. Intense pain and rectal incontinence followed. The prolapse did not recur. In another case of a woman aged 20, he was not so successful. Patient herself was healthy, although several members of her family had died of phthisis. Twelve years ago, while at stool, prolapse occurred, which was reduced *several days* after by a surgeon. Two months ago the accident again occurred. June 19, 1877, under chloroform, thorough cauterization with thermo-cautery and reduction. Suffered from want of sleep from intense pain. June 27, slight prolapse which returned spontaneously. During July patient's condition was not good and prolapse occurred at each stool. July 24, operation repeated and morphine suppository inserted. Night following and next day, severe pain in rectum and abdomen. July 26, during attacks of vomiting prolapse occurred twice accompanied by slight hemorrhage. Tampon again applied. July 27, catheterization. On August 28th, third cauterization. October 9, fourth cauterization followed by intense pain for several days and profuse discharge. Nov. 8, fissure of the anus. Nov. 27, the patient was able to walk about the wards with little inconvenience. There was a slight prolapse which followed each act of defecation, but disappeared soon after. Patient quite comfortable.

CHRONIC CYSTITIS IN FEMALES.

The following is an extract from a clinic by Dr. Goodell, reported in the *Boston Medical Journal* :—

The most troublesome and obstinate of all affections of the female bladder is chronic cystitis, which usually arises from the lesions produced by labor. It comes, however, from other causes as well. The worst case I ever saw came from a simple over-distension of the bladder. Some twenty years ago the lady travelled a whole day in a stage-coach, and from motives of delicacy did not empty her bladder. When at her journey's end she could not pass her water, and had to call in a physician to draw it off. On that day sufferings began which have not up to this day ended. Our second patient is a terrible

sufferer from this disease. She had been in my hands, off and on, for many months, and I know her history by heart. It is as follows: Her first labor took place some three years ago. It proved a tedious one, and was ended by the forceps. The prolonged pressure of the child's head upon the neck of the bladder so bruised it as to cause a very distressing cystitis, which baffled all treatment. In time she grew somewhat better, but a second pregnancy lighted up all the old symptoms, and she came to me when three months gone. In vain I tried all the stock remedies by the mouth, vagina, and rectum. Finally, as she could not come into the hospital for a local treatment, I forcibly dilated her urethra; and so much good was gained by this treatment that she was enabled to follow her duties with comparative comfort, and I lost sight of her for many months. But after her second labor she became much worse than before. She tells me that she now is called upon to pass her water from thirty to forty times during the day, and from five to ten times at night. Thoroughly worn out by these endless tormina, she has come to-day to have the operation of forcible stretching repeated. This treatment of cystitis by rapid dilatation of the urethra is somewhat empirical, although not entirely irrational. It presupposes the presence of a fissure in the neck of the bladder, which may or may not exist; and in so far as that is concerned its employment is empirical, because we rarely can tell beforehand whether such a lesion is present. But, on the other hand, it over-distends and temporarily paralyzes the urethral and vesical sphincters, thus permitting the escape of the urine with as little pain and spasm as possible. In the majority of cases the dilatation is followed by great relief; often by a lasting cure. In the latter case we would attribute our success to the previous existence of a fissure, healed, as are analogous anal fissures, by the surgical manoeuvre of overstretching. Since the fact is generally admitted that fissure of the sphincter and often succeeds labor, it is by no means improbable to suppose that in like manner fissures may be formed in the urethral mucous membrane. But you must take this on trust, for I have never yet been able to feel what I could swear to as a fissure in the neck of the bladder. First, of course, etherize your patient as ours has been, for the pain it causes is otherwise unbearable. Next, pass in a uterine dilator, and gently stretch open the urethra, as I am doing. It distends readily, so as to allow me to coax in very slowly my little finger, which has been well greased with carbolated oil. I can feel the sharp edge of the vesical sphincter give way before it, and now it is wholly in. Withdrawing this, I slowly work in my index finger, which will sufficiently distend the urethra, and which goes in still more easily. Now I am able to feel the inner surface of the bladder, which is not thickened and rough, as one would suppose from the severity of

the symptoms, but smooth and velvety. I always take this opportunity to explore the bladder for stone or other foreign bodies; for the finger is a sound with brains in it, and therefore worth much more than the ordinary metallic sound. Usually the upper margin of the meatus is slightly lacerated by this operation, and sometimes free bleeding takes place. This, however, I have, with one exception, always been able to stay by a piece of absorbent cotton moistened with Monsel's solution. The exception occurred in the person of this very woman. When I previously dilated her urethra she was pregnant. The vessels of the vulva were accordingly enlarged and engorged, so that the bleeding from the slight rent of the meatus was altogether more than I had bargained for. As no astringent seemed to be of any service, I passed in a needle deep down to the bone, and closed up the wound by a stitch. Those of you on the front seats can see the notch in the meatus still left by the former operation. Candor compels me to mention one objection to this operation, and that is the possibility of permanent incontinence following it. In my own cases this has never happened, but I saw one example of it in which the thumb had been forced into the bladder. But supposing this dilatation does no good; what then? Put the woman to bed; drain off her urine by such a self-retaining catheter as the Skene-Goodman. It is so short that it barely goes in beyond the neck of the bladder, and the holes in its bulb are so small that the thickened and softened mucous membrane is not likely to be sucked into them and be torn off, as it will in the ordinary catheter with larger openings. If this should fail, try a milk diet and rest. Inject into the bladder, though never more than an ounce at a time, solutions of nitrate of silver, slowly increasing the strength by two grains every other day, till thirty grains to the ounce are reached. Keep the solution in the bladder not longer than five seconds, then withdraw it; and if the pain be great, use a hypodermic of morphia. Weak solutions of carbolie and of salicylic acids are highly spoken of; so especially are a two-grain solution of quinia and a five-grain one of chlorate of potash. Braxton Hicks lauds a two-drop solution of hydrochloric acid. He injects this daily, an ounce at a time, repeating it till the urine flows off clear. He then follows it with one ounce of water in which from one to two grains of morphia are dissolved. One hint about the use of the ordinary flexible catheter in these cases: when drawing off the urine do not let the tip of the instrument go much beyond the neck of the bladder, else the mucous membrane will flap down violently upon it, and be bruised. When fluids are injected, the tip of the catheter need not enter the bladder at all, but preferably should stop just short of the neck. Sometimes every kind of treatment will fail, and then we may be obliged to put the bladder at rest by making an artificial vesico-vaginal fistula. There

is one more disturbance of the bladder peculiar to females, and that is incontinence of urine, that may be found to follow even such slight succussions as are imparted by laughing, coughing, or by running. This generally happens in women who have borne many children, but I have seen it as well in unmarried women of weak fiber. Apart from ferruginous preparations, the best remedy that I know for this infirmity is a combination of tincture of belladonna, fluid extract of ergot, and the tincture of nux vomica. If this fails, I should recommend the application of carbolie acid, or of even nitric acid, to the urethra, with proper hygienic treatment.

STRICTURE OF THE URETHRA; RETENTION RELIEVED BY RECTAL PUNCTURE; SUBSEQUENT EXTERNAL URETHROTOMY; PROFUSE HÆMORRHAGE; PYÆMIA; DEATH.

(UNDER THE CARE OF MR. HEATH, UNIVERSITY COLLEGE HOSPITAL.)

W. D.—, aged fifty-four, a chair-maker, was admitted at 8.30 a.m. on June 21st, 1878, with retention of urine, the bladder being distended to the umbilicus. He was catheterised by the house-surgeon for ten minutes without success; then put into a hot bath for an hour, in which he passed sufficient urine to relieve his most urgent symptoms. After this another attempt was made to pass a catheter, but without success. In the afternoon Mr. Heath attempted to pass a catheter, while the patient was under ether, Nos. 4, 3, 2, and 1, English silver, and Nos. 3 and 2 French, being used in vain. The catheter passed into a false passage to the right of the urethra. There was free hæmorrhage from the urethra, the blood coming out in jets. Mr. Heath punctured the bladder through the rectum, and drew off a pint and a half of dark urine. The tube was tied in, and the patient put to bed.

He passed a quiet night, though he obtained no sleep. Next morning he was in no pain; the tongue pale and moist; the pupils moderately contracted; the bowels acted twice in the night, with each stool was some coagulated blood; the abdomen was natural; there was no dulness above the pubes, and no supra-pubic pain; the urine ran freely through the tube, and was mixed with blood.

On the 24th at his visit Mr. Heath attempted to pass a catheter, but failed, the false passage being entered, and profuse bleeding following again.

On the 26th, in the morning, the tube slipped out of the bladder. There was a small superficial sore over the sacrum. At 2 p.m. the patient was placed under ether, and Mr. Heath performed

Wheelhouse's operation of external urethrotomy. The patient being placed in the lithotomy position, Wheelhouse's staff was passed down to the stricture. A knife was then entered in the mid-line of the perineum, and the bulbous portion of the urethra in front of the stricture was opened, and the edges held apart by artery forceps. There was moderate bleeding, which was soon arrested by sponging with iced water. The director was then passed through the stricture into the bladder; along the groove of this a gorget was passed; from the perineal wound a large silver catheter was passed along the gorget into the bladder, and half a pint of offensive urine was drawn off. A No. 10 silver catheter was then passed from the meatus, and after a little difficulty was introduced into the bladder, and tied in. In the evening patient shivered, after which he turned hot and perspired. Temperature 102.2°.

He passed a quiet night, and next morning there was neither abdominal distension nor supra-pubic pain. The urine had run away freely by the catheter through an india-rubber tube connected with a pan under the bed. Temperature: 10 a.m., 102.6°; 7 p.m., 99°.

On the 28th the patient looked very ill; the features were pinched, and the mucous membranes cyanotic. At 10.30 a.m. he shivered, and at 11.30 a.m. temperature was 104°; pulse 125. 7 p.m.: temperature 99.4°. 10 p.m.: temperature 102.4°. Patient was sick through the night. There was no distension of the abdomen, no pain on pressure over either iliac fossa or around perineal wound. The breath-sounds over the chest were harsh, and accompanied by bronchitic râles.

On the 29th, at 9 a.m., profuse bleeding occurred, apparently from the puncture in the bladder per rectum. Lint plugs and perchloride of iron were applied without success. The amount of blood lost was estimated by the house-surgeon at three pints. At 10.30 a.m. Mr. Heath saw the patient and made a compress plug of lint, which stopped the bleeding. At 11 a.m. he breathed rapidly and looked very blanched. Pulse rapid and very weak. He never rallied after this, but gradually sank and died at 7.30 p.m.

Necropsy, thirty-five hours after death.—Rigor mortis well marked; body well nourished; wound in perineum dirty and offensive. On opening the thorax, a trace of serum was found in each pleural cavity, also in pericardium. Heart-substance flabby; lining membrane deeply stained with blood-colouring matter; large firm post-mortem clot filling the right heart. Valves healthy. Inner surface of aorta deeply stained with red colouring matter, and flecked with atheromatous patches. The lungs were slightly emphysematous anteriorly; posterior parts of the upper lobes congested. The posterior part of inferior lobe and base on both sides deeply congested, and mottled with livid

spots, with every gradation of inflammation to well-defined abscesses, ranging from the size of a cherry to a pin's head. There was a large number of abscesses, all situate in the posterior surface of the lower lobes on both sides. The liver was rather larger than normal; weight sixty-four ounces; showed nothing special except change of colour from sulphuretted hydrogen. The spleen of normal size, firm, mottled on left border by three patches of congestion, corresponding to patches of firmer consistence; no infarcts; no trace of abscess. The kidneys were normal in size. On section in both a zone of distinct active congestion was seen around the bases of the pyramids, and an occasional fleck here and there in the cortex. The pelvis was full of pale, turbid urine. The ureters perfectly healthy. The bladder was extremely hypertrophied, but comparatively healthy inside. On its outer surface, in recto-vesical pouch, there was some lymph, but no other trace of inflammation. The urethra was pervious; but a quantity of pus infiltrated the spongy portion, half way down into the glans. The wound, very sloughy and foul, led up into a ragged cavity about and behind the prostate. How far this was the result of instrumentation was uncertain, the tissues being sloughy in the extreme. The rectum was deeply stained and abraded by the plugs dipped in perchloride. No point could be discovered as the source of the hæmorrhage. The blood might have come from a pedunculated body like a bleeding pile, which had a clot on its apex. This body was about eight inches from the anus. The rest of the rectum was congested as high as the sigmoid flexure. The trocar wound into bladder was sloughy, and about large enough to admit the tip of little finger. The prostatic veins contained no broken-down clots.—*The Lancet.*

REMOVAL OF AN INTERSTITIAL FIBROID TUMOUR OF THE UTERUS; RECOVERY.

(UNDER THE CARE OF DR. LLOYD ROBERTS, MANCHESTER HOSPITAL.)

The patient was a woman aged thirty-four, the mother of one child (now five years of age). She had always enjoyed fair average health until a year and a half before, at which time she commenced to suffer from menorrhagia; six months later she married a second time (having been a widow for three years), and a month afterwards was seized with severe uterine hæmorrhage a few days after menstruation; the hæmorrhage recurred at intervals, but for the three months prior to the operation it had been almost continuous. The tumour had not been perceived longer than ten months, and had at the time of operation attained the size of a

large foetal head; a portion of it as large as an orange protruded into the vagina through a widely dilated os. The uterus was anteverted, and its cavity elongated to the extent of six or seven inches.

The operation was performed on September 2nd, 1878, under the influence of ether, and proved to be an undertaking of great difficulty. The tumour was without pedicle, and grew from the fundus as well as from the entire anterior wall of the uterus. It was seized with two volsellum forceps, and strong traction was made in conjunction with firm supra-pubic pressure. Dr. Roberts then divided as much of its capsule as was within reach, and finding that prolonged traction was not practicable with the volsellum forceps, he cut off with uterine scissors as much of the tumour as was in the vagina. When three large pieces of the tumour had been in this manner removed, the cephalotribe was substituted for the forceps, and, by its firm grasp on the tumour, enabled traction to be considerably increased. A fourth piece, much larger than any of the others, was now cut away. The advisability of leaving what remained behind to nature was then discussed, but another trial with the cephalotribe was agreed to, and after continued traction had been persevered in for some time, complete inversion of the uterus was induced. What remained of the tumour was attached to the fundus, and proved to be a little larger than an orange in size; this was separated from its attachments to the walls of the uterus by the hand, and thus the operation of enucleation was satisfactorily accomplished.

The fundus and body of uterus were reduced by manual pressure with very little trouble, owing, no doubt, to the dilated and flabby condition of the organ.

Scarcely any hæmorrhage took place, but the patient suffered from profound shock for two hours; the hypodermic injection of ether, together with brandy and turpentine enemata, were found useful in aiding reaction.

Convalescence was rapid and complete, the highest temperature, 101.4° , being on the evening of the fifth day. The patient left the hospital on the nineteenth day, and a fortnight later her uterus measured only a quarter of an inch above normal, and no return of the hæmorrhage had taken place.

The tumour weighed 3 lb. 5 oz., and was composed of fibrous tissue without the presence of any kind of degeneration.—*The Lancet*.

TREATMENT OF ANKYLOSIS OF THE KNEE.—Dr. Gamgee reports a case of ankylosis of the knee in a delicate youth, aged fifteen, whose left knee had been immovable for months. The leg was at a right angle with the thigh and the head of the tibia slightly displaced backward. The joint could not be moved in any direction. Two days

afterwards, while the patient was under ether, he attempted forcible extension, with the only effect at first of making very tight all the tendinous structures about the joint. With a tenotome, he successively divided all the hamstrings, including the ilio-femoral ligament, and with the help of assistants, at once straightened the limb. To judge from the force employed and from the successive loud cracks, the adhesions must have been in great part bony. The joint was wrapped in cotton-wool and a plaster of Paris case applied. He did not interfere until the tenth day, when he found the wounds all healed and the straightened knee cool and painless. He first saw this plan of operation carried out by Prof. Palasciano, in Naples in 1852, and he has repeatedly adopted it with success. As a general proposition, it may safely be laid down that forcible extension of ankylosed joints, immediately after subcutaneous division of contracted muscles and tendons, is a method of treatment deserving of wider application than it has yet received.—*Hos. Gaz.*

**SALICYLIC ACID IN SCARLET FEVER AND DIPH-
THERIA.**—A correspondent in the *Brit. Med. Jour-
nal* says: it may be interesting to some of our
readers to know that in salicylic acid we have one
of the most reliable remedies in the treatment of
scarlet fever and diphtheria. For the last three
years I have used, with unvarying success, the sali-
cylic acid suspended in mucilage in both mild and
severe forms of scarlet fever, and have seen the
throat-symptoms and fever rapidly abate, and the
patients make rapid recoveries. On being called to
a case, I have given doses varying from five to ten
grains every two hours, until the throat-symptoms
and fever abated, and find that little patients, for
whom we can do so little, when obliged to use the
mop or brush to the throat, experience no incon-
venience in taking this medicine, which, being
simply in a state of suspension, has a chance of, at
least a portion of it, remaining on the throat, and so
acting as a topical remedy, whilst the remainder
acts as an invaluable antipyretic.

The success in cases of scarlet fever has led me to
try the same remedy for diphtheria; and I am
happy to say, that, in the most virulent cases of
diphtheria, I have seen the pellicle broken up and
the diphtheritic patch removed in a marvelous
manner. Indeed, since the use of salicylic acid in
diphtheria, I have not seen one fatal case, although
several were of a dangerous type. It is but fair to
say that, in diphtheria, my mode of action is giving
the salicylic every four hours, and tinctura ferri
perchloridi (P. D.) alternately with it. Some may
probably say, "How do you prove that it is salicylic
acid which removes the patch, when you use iron
also?" My answer is, that at first, I trusted solely
to salicylic acid, and found, in mild cases, that it
answered every purpose; but, that in more severe

cases, accompanied with much debility, there seemed to be a tendency to return of the disease on discontinuing the remedy. I was thus led to use the iron, alternately with the acid, as a blood-restorer. To prove that iron was not the sole active agent in the cure, I can but point to the many failures of iron as a local application in the past treatment of diphtheria; whereas, with the salicylic treatment, I have not known one single case of the pellicle spreading under its use.

I append the form I use:

R. Acidi salicylici . . . 3 i vel. 3 ij.
 Syrupi simplicis . . . 3 iv.
 Mucilaginis tragac . . . 3 i.
 Tinctura aurantii . . . 3 iv.
 Aquæ. q. s. ad . . . 3 vi.
 Fiat Mistura
 Capiat 3 iv, 2 dis horis.

ACHING KIDNEY.—J. Matthews Duncan, M. D., LL. D. (*Medical Times and Gazette*), says, this disease is sometimes, both in men and women, very easily recognized. There are achings in cases of what is called floating kidney. The patient can put her hand on the lump, and say, "Here is the pain," and there is no difficulty in recognizing the disease. But there are some cases in which the disease is very difficult to identify. In pregnancy, for instance, right or left hypochondriac pain is very frequent. In many cases I have been able to be quite sure, from the history before and after pregnancy, that the disease was not to be classified in the vague way that is implied in giving it the name of hypochondriac pain, but that it was really a case of aching kidney. In pregnancy you have the very opposite conditions to those in floating kidney. If pregnancy is advanced, you can not get at the kidney to feel it and identify its position. Here I may remark that, while the disease often occurs in pregnancy, yet some women who are liable to it do not suffer while in that condition.

The disease in women is not a rare one, and its characters are the following: One or other kidney is the seat of pain. It is not a neuralgic pain; it is a heavy wearing pain deep in the side. It is in the region of the kidney; and in many cases, as I shall presently tell you, you can easily identify it as being in the kidney itself. It is not generally, that kidney-pain which is a familiar symptom of calculus. In such cases the pain is the pain of the pelvis of the kidney. You have in the region of the small ribs a boring or a nail-like pain. Patients with aching kidney generally point to the hypochondriac region, not to the back, as they often do in cases of calculus in the kidney. This pain is frequently accompanied by pain in the corresponding lower limb, referred most frequently to the course of the sciatic nerve, sometimes to the course of the anterior crural. The pain is often accom-

panied (and you will find this of importance throughout all the subjects of this lecture) by irritability—I do not say disease—of the bladder; and it is frequently accompanied by pain in the region of the ureter corresponding to the kidney affected. This pain is not rarely present only during the monthly periods. When it is present only during the monthly periods it may be classed with that disease, which is very ill defined called dysmenorrhea. It should never be placed there unless you wish to use the word dysmenorrhea in a very wide sense. If we use the word as including aching kidneys, we might as well use it as including headache—a use which would be in accordance with what is extensively done by writers. This disease, however, often eludes the examination of the physician, because it occurs in many cases only during the monthly periods. In all cases it is then aggravated. I do not think I have ever seen a case in which the patient did not volunteer the statement that the pain was worse at the monthly time.

It is not usual to find both kidneys aching; and I guess—I can use no stronger word—that the left kidney is much more frequently the seat of disease than the right one. You are not left in your diagnosis in all cases merely to identification of the seat of the pain, although that may be sufficient. Frequently in the region of the pain you can find distinct fullness; that is a very important condition that I have not time to explain to you. It can scarcely be made out in a fat woman; but in many cases this condition of fullness over the affected kidney is easily recognized. In addition, swelling of the kidney or of the suet, or of both, is not rarely to be made out. The physical examination of the kidney is too much neglected. It is not in floating kidney only that you can feel the organ. In many women who are not nervous, yielding themselves freely to examination, and who are not fat, you can feel the kidney with distinctness; and in cases of this kind you can frequently make out as I have said, that there is a swelling of the kidney or of the suet, or of both. There is also generally tenderness, sometimes great tenderness.

The treatment is to be conducted on the general principles applicable to the therapeutics of neuralgia or slight hyperæmia; and these two conditions are not so very remote from one another as may at first sight appear. A neuralgia sounds as if it were something quite different from a hyperæmic condition; but that has to be proved. The remedies I have found of most service in simple cases of this kind are tonic regimen and tonic medicines, especially iron in the form of the tincture of the perchloride combined with mild diuretics in small quantity, and especially the common sweet spirits of nitre.

QUININE.—Milk disguises the bitter taste of all the cinchona alkaloids; 1 grain to the ounce of milk, being almost tasteless of the quinia sulph.

WARM FOMENTATIONS TO THE HEAD IN CASES OF UTERINE HÆMORRHAGE.—Dr. Koehler (*Allg. Med. Central-Zeitung*, No. 1, 1879). (*Brit. Med. Journal*), states that he has for the last seven years, in cases of uterine hæmorrhage, applied warm fomentations to the head to prevent anæmia of the brain, and also to the heart. Hot sand-bags are also very efficient, and the patients often will bear sand which is so hot that it can scarcely be touched with the hand. As soon as the fomentation or bag has been applied, consciousness is restored; the pulse grows stronger; the patient herself states that she feels better, that the ringing in the ears has ceased and that she likes the appliance. As soon as it becomes cooler, she wishes it to be renewed. Dr. Koehler has, he says, saved patients even in most dangerous cases of hæmorrhage by this proceeding, by which the physician never loses time, as the fomentations may be watched and renewed by any one. This method has been found equally efficient in anæmia caused by epistaxis, hæmorrhages produced by wounds, etc.

THE SYMPTOM OF TENDON REFLEX IN LOCOMOTOR ATAXIA.—Westphal and Erb have described two forms of reflex tendinous phenomena as occurring in the early stage of locomotor ataxia. Thus if in a healthy person the ligamentum patellæ of the loosely hanging leg, or the tendon of the quadriceps femoris, be struck a smart blow with the side of the hand a more or less violent kick will follow, while if the tendon of Achilles be struck in the same manner the heel will be raised. In locomotor ataxia it is claimed that these phenomena are absent. Dr. A. M. Hamilton (*Boston Med. Jour.*, Dec. 27, '78.) reports eight cases of this disease. In these cases one-half present this symptom, but in the other half the tendon reflex is not only present, but in some cases markedly increased. Thus it would appear that this symptom is of less value than has been claimed. But when it is present coupled with the so-called lightning pains, plantar anæsthesia and dimness of vision, it has great force, even in view of Dr. Hamilton's observations.—*Detroit Lancet*.

CHLOROFORM NARCOSIS (*Louisv. Med. News*, Nov. 30, '78).—Wachsmuth, of Berlin, asserts that much of the danger from the administration of chloroform may be averted by adding to it twenty per cent. of oil of turpentine, which, he says, stimulates the lungs and thus protects them against the great enemy of chloroform narcosis—pulmonary paralysis.—*Ibid*.

PROPYLAMINE IN CHOREA.—(*Le Mouvement Medical. Med. Record*, Nov. 30, 1878).—Dr. Parkhauser recommends propylamine as a prompt and effective remedy for chorea. He claims that it effects a cure in three or four days; relapses are

cured in one or two days. He gives it in doses of from 15 to 19 grains per diem. This quantity is dissolved in four ounces of water and one ounce of syrup, and a spoonful is given every hour. In his hands, three or four grammes, administered in as many days, have invariably produced a complete cure.—*Ibid*.

POISONING BY CHLORATE OF POTASH.—A case of poisoning by chlorate of potash is reported in the *Archiv der Pharmacie*. It occurred in the family of a Dr. Kauffmann, who had taken it home and had given small quantities of it daily to his three children as a prophylactic against the diphtheria at that time prevalent in the vicinity. During his absence from home, his children began to play "doctor," and each swallowed about 14 or 15 grams (nearly 3ss). The younger, a girl 2½ years, began to vomit and died in about 7 hours, of gastritis. The salt was in a crystalline state, and as it is only soluble in 16 parts of water, it here acted as a violent irritant.

The somnolence of this child was the most striking symptom, in addition to the continued vomiting. From the very beginning, until death, it was in so lethargic a state as to manifest no pain. Physicians and druggists are so much inclined to consider this salt as comparatively harmless, that such cases as the foregoing deserve careful attention.

Another case of a somewhat similar nature is mentioned in the same journal. A young man complaining of hoarseness had been advised to take chlorate of potash. He bought some of the salt and after taking a few doses was compelled to desist on account of the vomiting and pain induced. On two subsequent occasions he had recourse to the same agent for the same malady, but it produced a similar effect, which did not pass away until he again discontinued the medicine.

CHEWSTICK.—This is a natural tooth-brush furnished to the Jamaicans by the stem of the *Gouania Somingensis*. A portion being broken off and chewed, its fibres are thrown out in a brush-like form, which the inhabitants use for a tooth-brush. The substance of the plant furnishes a pleasant, bitter, saponaceous froth when rubbed around the teeth.

A DOCTOR must be a mechanic, a nurse, a cook, a chemist, a pharmacist, an anatomist, a physiologist; he must have the wisdom of Solomon, the patience of Job, the independence of Diogenes, the philanthropy of Howard.—*Dr. Gibbons, in Pacific Med. and Surg. Journal*.

GOUGH'S opinion of alcohol as a medicine is that "it is very like sitting down on a hornet's nest—stimulating but not nourishing."

PHOSPHIDE OF ZINC.—Gros, in *La France Médicale*, extols this article, and advises its use in nervous affections, and especially in hysteria; giving at the same time a long list of neuroses in which it has been successfully used by physicians in America and England. He says that, though hysteria is an affection strange in its termination, so many cures have been reported that we should prefer this remedy to others because of its promptness of action, its facility of administration, and its innocuousness. It is stated that, contrary to expectation, it is innocuous, because if a toxic dose is given vomiting invariably occurs, which prevents the poisonous action of the drug. The best form for administration is the granule.—*Medical Brief*.

SEA-SICKNESS.—Nitrite of amyl is highly recommended by Dr. Patton, of Mississippi. He has repeatedly used it upon himself for the past five or six years, and always with success. He has also given it frequently to suffering passengers, and with success in all the cases if administered early in the attack; those that had been sick some time were not much benefited by it.

CROUP.—As a substitute for tracheotomy, Dr. Palvandeau (*La Tribune Méd.*) recommends a hypodermic injection of equal parts of sol. ferri chlo. and water into the trachea. It is said that shreds of the membrane come rapidly away. [We would think Monsel's solution better.]

GASTRIC ULCER.—Dr. Bell, in *Edinburgh Medical Journal*, recommends eucalyptus in stomachic troubles simulating ulcer, or in ulcer itself.

Reports of Societies.

OTTAWA MEDICO-CHIRURGICAL SOCIETY.

The annual meeting of the above society was held in Ottawa on the 23rd of January, 1879. There were present Drs. Sweetland, Wilson, Whiteford, M. K. Church, Ross, Rogers, Carmichael, Scott, Horsey, Henderson, Powell, H. P. Wright, W. Malloch, McRae, Sauv , and S. Wright.

After routine business, the following officers were elected for the ensuing year:—*President*, Dr. McDougall; *1st Vice-president*, Dr. Carmichael; *2nd Vice-president*, Dr. Henderson; *Sec.-Treas.*, Dr. McRae; *Executive Committee*—Drs. Sweetland, Wilson, Powell, Whiteford, and M. K. Church.

The retiring President, Dr. H. P. Wright, then delivered the following address:

GENTLEMEN,—Before handing over the keys of office to my worthy successor, whom you have just

elected, I would like to say a few words, and to give an account of my stewardship during the past twelve months. Towards the end of the year '77, the "Ottawa Medico-Chirurgical Society" was in a dying condition—dying, too, for the mere want of attention. This was at last recognized, a healthy reaction set in, and it was determined to make the society a success. A committee was appointed to secure more comfortable rooms, which it did most successfully. It was then determined to hold two meetings in the month instead of one as before, and we adopted the plan of announcing each night, the subject for discussion on the following night, in order to encourage among ourselves the desirable habit of reporting cases, and of thinking over and reading different authorities on the questions under consideration. All this was the result of the reaction, and we commenced the year 1878 with much higher prospects of success, and we have succeeded fairly well, considering the time, though much remains to be done. Our meetings are certainly growing larger, yet not as large as they ought to be. With nearly forty medical practitioners in the city, we should average about twenty every night, and we have only averaged nine during the year; yet, as I have said before, the attendance is increasing steadily, and all we have to do is to persevere in making the meetings attractive and interesting, and we are bound to succeed. In another year I hope we will have as an active member, every man in the city who cares for his profession, for we are better off without those who do not. It is the only means we have in Ottawa of knowing each other; of interchanging ideas on subjects of common interest; of explaining difficulties so often more imaginary than real; and of rubbing off asperities which, in the course of nature, must form, and in the absence of attrition will certainly become insurmountable obstacles. Then, too, we must not forget that "union is strength," a strength we fully require, for we have to deal with the public, and the public knows nothing of medicine as a science. It is only in this way we can support the laws that are made to protect us, and it is only in this way we need ever expect to gain that influence in society which we ought to possess.

And now, gentlemen, before proceeding to a more detailed account of the society's doings during the past year, I may here mention that we, as medical men, do not make ourselves sufficiently well known to the profession throughout the country. While deprecating in the strongest terms the pernicious habit of using the secular, I do not think we make sufficient use of the medical press. Papers are edited in Toronto and Montreal, and an occasional communication from our Secretary reporting transactions, would be, I am certain, cheerfully acknowledged by them. An occasional paper might, and all reports of interesting cases, should be published. I do not mean to

say that this need frequently be done; I only suggest that it should be done occasionally, so that our confrères may know that the profession in Ottawa is not sleeping.

Beyond the pale of our own association, I have nothing of much importance to report. Our city has been particularly free from epidemic and endemic diseases. In the early part of the summer scarlatina was prevalent, though not, generally speaking, of a malignant type. During the summer we had the usual number of infantile cases, many, of course, fatal; the familiar "summer complaint" is, I think, the greatest pestilence we have to contend against, and one that might well occupy the renewed consideration of this association. In the fall of the year there were remarkably few cases of typhoid fever, a condition of things to be attributed, no doubt, to our improved water supply and drainage, which, together with our elevated position, ought to make the disease almost unknown in our midst. This winter, we find that, owing to the depressed times, the diseases incident to exposure to cold and want are more prevalent than usual, yet all things considered they are surprisingly few, and when we hear of places in our vicinity being visited by such diseases as small-pox and diphtheria, we, as a city, have every reason to be thankful. During the year we have held seventeen meetings, an irregularity having occurred during the summer months. We commenced by discussing "Diseases of the knee joint," and then took up in succession the following subjects: Typhoid Fever, Scarlet Fever, Puerperal Fever, Syphilis, Stricture of the Urethra, Retention of Urine, Intestinal Diseases of Children, Croup, Fractures, Obstruction of the Bowels, Placenta Prævia, Apoplexy, Osteo-sarcoma, Ovarian Disease, and, finally, Pyrexia. Several well-prepared and interesting papers were read on these different subjects, and all were discussed freely and in the most practical manner. Friendly criticism was universally courted, and each one present seemed actuated by a desire to impart any practical knowledge he possessed on the subject in question. Perfect harmony and good-will characterized the meetings from the beginning.

With your permission I will step a little off the line, and refer particularly to the paper read by Dr. Hill on "Retention of Urine." It was a prize essay, written by that gentleman forty years ago, and I am inclined to think it would be looked upon as a prize essay now. Certainly some improvements in the treatment of stricture, as a cause of retention, have taken place since that time; beyond these, very few changes have marked the progress of science in relation to that subject. I would also like to refer particularly to a meeting held on the 24th of October, on which occasion Dr. Grant demonstrated the circulation of the blood in a frog's lung, and also the auriculo-

ventricular action of the heart in the same animal. These demonstrations were most successful, and were fully appreciated by the members present, who returned to Dr. Grant a special vote of thanks. The subjects have all been of the most practical nature, and though they have been, as a rule, rather too comprehensive, yet we must remember they are by no means exhausted, and we have the privilege of returning to them as often as necessary to do them and ourselves ample justice in that way. We have at our disposal an almost inexhaustible fund to draw from.

In conclusion, gentlemen, let me offer you my most sincere thanks for the generous way in which you have overlooked my many shortcomings while acting as your presiding officer during the past year. They are so many that I shall not attempt to enumerate them, but, trusting to the same generosity you have so far extended to me, I will believe that they are already forgotten. I must also tell you that any success we have had this year I do not attribute to myself. It is owing to the energy and earnestness of every regular attendant. Each member ought to feel that the success of the association depends upon his own individual exertions, and to remember that however much information he may give, he is safe to receive in return a fair equivalent.

As to my successor, I have to congratulate the association on their excellent choice, and towards him I can extend no better wish than that he may enjoy his year in the chair as much as I have enjoyed mine.

Dr. McDougall having taken the chair, a cordial vote of thanks was tendered to Dr. Wright for the able manner in which he had discharged the duties of his office during the past year.

An interesting discussion then took place on "Vesical Calculus"—reports of several cases being presented, after which the society adjourned.

GEO. McRAE, M.D.,
Secretary.

MICHIGAN STATE BOARD OF HEALTH.

The regular quarterly meeting of the State Board of Health was held in Lansing on January 14.

ADULTERATION OF SUGARS.

Dr. Kedzie made a verbal report on table sweets, showing the methods of adulteration now practised. One of these is by the use of glucose, which is an inferior article of sugar formed by the action of sulphuric acid on starch. In sugars thus adulterated, there is usually found sulphuric acid and copperas. Another method lately practised has been for the lessening of duties, and consists in coloring sugar so as to make it appear of lower grade. The danger comes from the poisonous

chemicals used in bleaching. Dr. Kedzie also mentioned the fact that where bees are fed on glucose, this substance will be deposited in the cells without change. In connection with the adulteration of sugar, the doctor also said that one bushel of corn would make about 40 pounds of grape-sugar or glucose. Where the sugar is of a blue tinge, it is an evidence that blueing has been added to the sugar to relieve the yellow appearance due to the adulteration. The experiments and reports heretofore made by Dr. Kedzie had been made the basis of a memorial to Congress asking legislation upon the subject.

VENTILATION OF BUILDINGS.

Rev. Dr. Jakokes read a paper on the heating and ventilation of buildings already constructed. He showed diagrams illustrating the methods of improving the ventilation in buildings already constructed. One method was the leading of fresh air from outdoors to a jacket enclosing a space around a stove, and withdrawing the foul air from the floor level by means of pipes which lead from near the floor to the chimney above. He gave an illustration of a church which had been insufficiently warmed by three stoves, but which was afterwards thoroughly warmed and ventilated by one of these stoves, properly jacketed, and the cold and foul air withdrawn from the floor level. The ventilation of two churches by a similar method cost but \$10, and ventilating apparatus for dwellings costs from \$1.25 to \$10.

ILLUMINATING OILS.

Dr. Kedzie brought before the Board a sample of "mineral seal" oil, a new brand, which stands a flash test of 260 degrees, by the Michigan method, and will also stand the Michigan chill test. He exhibited a lamp filled with this oil, which gave a brilliant light equal to 26 railroad candles. This oil is manufactured for the Standard Oil Company, Cleveland. It sells for 40 cents a gallon. It is made by freezing the paraffine out of heavy paraffine oil. He recommended the use of this oil on railroad cars, under very stringent provisions. He showed the safety of the oil by heating it to 254 degrees and plunging lighted pine sticks into it, when they were immediately extinguished.

REGULATION OF MEDICAL PRACTICE.

LeRoy Parker read a report on the subject of the Illinois law regulating medical practice, and on the proposal to regulate the practice in Michigan. The Illinois law compels an examination by a state board, and the effect is to drive quack doctors out of the state, and some have come to Michigan. He recommended the enactment of a law by the Michigan legislature, requiring practitioners to undergo examination.

Dr. Hitchcock presented the form of a memorial to the legislature on the subject, expressing the

opinion that great injury is being done to the health of many persons in this state, and that many deaths occur because of treatment by ignorant and unscrupulous pretenders, bearing the name of doctor, with perhaps the title of "M.D." He recommended an examination of practitioners in anatomy, physiology, pathology, chemistry and botany.

DIPHTHERIA STATISTICS.

The secretary presented reports from Dr. E. N. Palmer, of Brooklyn, Jackson county, relative to the outbreak of diphtheria in that section. During a period of five months, there were 67 cases and 11 deaths. He gave several instances where diphtheria had been communicated by persons convalescent from that disease; also, by persons who did not have the disease at all, but were in attendance on patients.

The document on the prevention and restriction of diphtheria, issued by the board, has been in great demand, not only in Michigan, but throughout other states and territories.

Dr. Baker presented the subject of the temporary maintenance of diseased and crippled children at the State Hospital in Ann Arbor, as a means of preventing sickness and pauperism in after life.

WESTERN AND ST. CLAIR MEDICAL ASSOCIATION.

The Western and St. Clair Medical Association held its thirteenth annual meeting in London on the 20th ult. The following members were present: Drs. Tye, Bray, Holmes, Lumley, Newell, Graham, Smith, Vanvelsor, Buck, Beemer, Edwards, Brett, Caw, Fraser, Stevenson, Richardson, McLean, McAlpine, Fraser, Stevenson, DeLom, Flock, Brown, Wilkinson, Jones, Cream, Payne, C. S. Moore, C. T. Moore, and Street. The following officers were elected:—Dr. Lambert, President; Vice-presidents, Dr. Caw for Middlesex, Dr. Brett for Lambton, Dr. Richardson for Kent, Dr. King for Essex; Dr. Fraser, re-elected Treasurer; Dr. Beemer, re-elected Secretary.

Dr. Tye, the retiring President, delivered an able and interesting address which will appear in our next issue.

Dr. Holmes read an interesting paper on the treatment of the nerves by electrolysis, and Dr. McLean, of Sarnia, read an essay on the reciprocal relation between the medical profession and the general public. The members of the Association were subsequently entertained by Dr. Fraser at his residence. The next meeting will be held in Windsor in June next.

PARLIAMENTARY HONORS—Dr. Robertson, of Milton, has received the unanimous choice of the Reform Association of Halton, for the Ontario Parliament.

THE CANADA LANCET.

A Monthly Journal of Medical and Surgical Science
Issued Promptly on the First of each Month.

Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Advertisements inserted on the most liberal terms. All Letters and Communications to be addressed to the "Editor Canada Lancet," Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. McMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAILLER, 16 Rue de la Grange Bateliere, Paris.

TORONTO, MARCH 1, 1879.

THE ONTARIO MEDICAL COUNCIL AND THE MEDICAL SCHOOLS.

It is above all things desirable that the Medical Council and the medical schools should co-work with the utmost harmony. So far, this has happily been the case, and it is very desirable that it should continue undisturbed. So long as the Council discharges its duties faithfully, and the several schools continue to perform their work well, no jarring of any kind need be feared.

In the annual announcement of the Council for eight or nine successive years, a clause appears to the effect that "each six-months course *shall* consist of one hundred lectures." This regulation has been scrupulously carried out year after year by several of our medical schools; Trinity College, Toronto; McGill College, Montreal; and also, we believe, in the Kingston Medical School. Up to the present time the tickets, certified by the several professors of all the schools, were received by the Council, as they are in England and elsewhere, as affording ample evidence of the pupil's attendance. In the Council annual announcement for 1869 and '70, in a note, attendance upon at least *four-fifths* of the actual teaching days of the session was required, but this was never acted upon, and was soon left out altogether, tickets being accepted, certified in the usual form. Last year, the number of lectures attended was required by the announcement to be certified upon each ticket, and the tickets thus certified were accepted as they always had been.

This year a *new* regulation appears in the announcement, which requires "that *two* certificates shall be endorsed on the ticket; one specifying

the number of lectures delivered in the course, and the other *testifying* that the pupil has attended at least 75 per cent. of the same." This regulation, of course, requires regular daily roll-calling, in school style, to make it anything but a farce, making school-teachers of the professors and school-boys of the students, wasting at least one-fifth of each lecture hour, and thus diminishing at once the teaching time by from 20 to 25 per cent. The mere publication of this injudicious, and to our mind, useless regulation, has led to a good deal of irritation among professors and students alike, in more than one medical school. Is it wise on the part of the Council thus gratuitously to create unpleasant feeling in the breasts of those whose cordial support is surely very well worth having, or to alienate, by a useless and vexatious rule like this, many of the oldest and best medical teachers, who are known to be bitterly opposed to it? Such a regulation effects nothing. Good lecturers, and good, punctual and interesting teachers, will always have good classes. Students are readily attracted by good, regular teaching, but they are not children, and cannot and will not be driven into attendance by mere roll-calling. Were it otherwise, they would hereafter make but very spiritless members of a noble profession. But the ill-will engendered by this rule, although quite enough to condemn it at once in the mind of every sensible man, is not by any means its worst feature.

While as we have already stated, in some of our schools, as Trinity, McGill, &c., one hundred lectures are given upon each of the branches, in at least one school, viz, the Toronto School of Medicine *eighty* lectures only, constitute on many branches the *full* course. Seventy-five per cent of 100 or 75 lectures would therefore be required from one set of students, while seventy-five per cent of 80, or 60 lectures only, would suffice for another set. This is so manifestly unfair that we see no other way out of the difficulty, than either the setting aside of both rules, or the carrying out of both according to the strict letter of the regulation.

The Medical Council has the entire examinations of every student in its own hands, and we are very glad that this is the case, and that body can well afford to leave the matter of teaching and class attendance in the hands of the medical teachers. All the Council or its Board of Examiners need require is, that the student has so far attended his

several courses of lectures, and so studied the subjects as to enable him to pass any examination, however searching. Any thing beyond this may, with perfect safety, be entrusted to our medical teachers, who are a body of men of whom any country may well be proud.

We are fully persuaded that neither the profession, nor indeed the Council itself, when the facts of the case are clearly understood, would for a moment sanction any thing so far from right, as the carrying out of so obnoxious a regulation. While we have not hesitated in the past to criticize any action of the Council, open in our view to criticism, we have always done so, as in the present instance, in a spirit of friendship, towards a body which has already done the profession much good, and which, if the policy of making friends rather than foes be adopted, may do much more good in the time to come.

MEDICAL LEGISLATION.

The Executive Committee of the Ontario Medical Council is again a suppliant at the feet of the Government of Ontario for medical legislation, asking power to extort from all British graduates the extraordinary sum of *four hundred* dollars for registration in Ontario. It appears that registered graduates of Great Britain have the privilege of practicing in any of the Colonies of Her Majesty's Dominions upon payment of the registration fees in force in such Colonies. This the Ontario Medical Council has all along strenuously objected to, but recently it was compelled to register Dr. Baldwin, of this city, a Canadian however, who possessed British qualifications. The upshot of this, is the present sought-for legislation.

We have always taken the ground that *Canadian graduates*, who subsequently spent a year or two in the Hospitals of London and the continent, and obtained additional qualifications, should be admitted to registration in Ontario upon payment of the ordinary registration fees. We did so chiefly on the principle that the Council was established for the purpose of protecting the public against the introduction of incompetent medical practitioners, and of ridding the community of quacks; and, as these gentlemen had spent extra time and money, and had shown every evidence of

thorough qualification, they should be admitted to registration in Ontario without further expense or examination. We believe if this had been gracefully conceded by the Council, the present case would never have come up for consideration. But, after all, what is there to fear? No British graduates as such, have come to possess the land and drive out our own superiorly qualified? medical men, nor are they likely to. We can manufacture doctors enough for Canada, and should rather exert ourselves in finding a market for the home product. And if no danger is to be apprehended—and the Council cannot show that any exists except in its own imagination—why all this anxiety? Even if a few good English graduates did come amongst us, it would do no harm. Nothing is to be gained in a scientific profession from exclusiveness.

We cannot but express our surprise that so astute a politician as the Premier of Ontario is reputed to be, should introduce such a Bill, and we cannot think that he seriously intends to pass the measure. Even if passed by the Local Legislature, it is more than likely to be vetoed, because it discriminates apparently so unjustly against British practitioners. Legislation to be of much value must proceed from the British Parliament, and we do not think the passage of so unwise and irritating a measure as this would help much in that direction. For our own part, we would very much prefer to have reciprocity in medical matters, between Great Britain and the Colonies. The Medical Council of Great Britain is in favor of something of this kind, and will, we have no doubt, introduce legislation for this purpose, if not checked by the gratuitous snubbing they receive from time to time from our Council.

TORONTO ASYLUM REPORT.

The report of the medical Superintendent of the Toronto Asylum for Insane, for the year ending 30th September, 1878, has been received. Dr. Clark has again earned the thanks of the community at large, and of the medical profession in particular, for his latest official contribution to the special science of which he is so earnest and promising a student. His report for the year above noted is one of the ablest and most instructive we

have ever had the privilege of perusing, and we almost regret that the extent of its valuable contents is so great, as to preclude the possibility of giving to them, in our limited space, that exposition to which they are so justly entitled. To approach this duty in the ordinary way of presenting excerpts, would, in the present instance, be an undertaking as distasteful to the generous critic, as the result might be unfair to the meritorious author.

We cannot, however, refrain from commending to all our professional readers, the able and exhaustive disquisition on the value of alcoholic stimulation in the treatment of certain dangerous forms of disease, and of course among the number, threatening and perplexing cases of insanity. Dr. Clark's individual adherence to strict and rational temperance principles, is too well known to all who have the pleasure of his intimate acquaintance, to permit the insinuation, or the most remote suspicion, of any mere partisan leaning having prompted him to the adoption of the therapeutic conclusions to which a long and sagacious professional experience has led him; and he has sustained his views by such a host of the most eminent authorities, as to prove that the subject on which he has now felt constrained to take a determined stand, has been very carefully scrutinized by him. We wish we could say half as much of a considerable number of his opponents, and especially of that class, who, in authoritative positions, which they are but very meagrely qualified to fill, arrogate to themselves the oracular function of displaying huge quantities of ignorance on almost every subject that chances to fall under their purblind arbitrament.

THE LATE DR. CAMPBELL.

It becomes our painful duty to announce the death of Dr. Duncan Campbell, of Toronto, President of the Medical Council of Ontario, of angina pectoris. Dr. Campbell was born in Argyleshire, Scotland, in 1811, and was, consequently, in the sixty-eighth year of his age. His early education was obtained in Caen, France, and afterwards in Edinburgh, graduating in the University of Edinburgh in 1833. After coming out to Canada in 1834, he served as surgeon in one of the battalions in 1837, and at the close of the rebellion settled in Hamilton, but soon after

removed to Niagara, where he remained until 1858, at which time he removed to this city.

His medical titles were the following: L.R.C.S., Edin.; M.D., University of Edinburgh; and M.D., Western Homœopathic College of Ohio. He was President of the Homœopathic Medical Board of Ontario from 1859 until its demise in 1869, and a member of the Ontario Medical Council from the latter date up to the time of his death, having occupied the position of Vice-President, and, at the time of his death, President of the Council.

He was a man of good education, great intellectual power, and his services in the Medical Council in the cause of higher education, were exceedingly valuable. He joined heartily in the amalgamation of the different licensing boards into the one sole licensing body in Ontario, the wisdom of which has already borne such good results to the public, and the medical profession in Canada. Although somewhat imperious and arbitrary in his manner at times, he was nevertheless, possessed of an agreeable and genial nature, and though liable sometimes to give offence, he was always ready to forgive and forget. He leaves a widow and eleven children, six daughters, two of whom are unmarried, and five sons, to mourn his loss.

DISSEMINATION OF DIPHTHERIA BY MILK.—

Mr. Power, one of the medical inspectors of the Local Government Board, London, England, has reported a number of cases of diphtheria which have been caused by the distribution of infected milk. This discovery is of equal importance with that of the dissemination of typhoid fever by milk, or rather milk containing polluted water. It was noticed that a great proportion of the patients in the infected district consumed milk from the same dealer, and upon careful investigation it was also found that wherever this milk had gone, elsewhere than within the area of the outbreak, diphtheria had occurred. In what manner the milk became infected has not yet been determined.

NITRO-GLYCERINE IN ANGINA PECTORIS.—In the *London Lancet* of January 18th is an article by Dr. Murcell of Westminster hospital, on the administration of nitro-glycerine in minute doses as a remedy for angina pectoris.

OMISSION.—The following last two paragraphs of Dr. Turquands address were inadvertently omitted in our last issue :—

“Permit me to wish all present ‘the compliments of the season.’ I hope sincerely that all our efforts for the relief and comfort of our suffering fellow-creatures may be abundantly blessed, and that the present year may be one of increasing prosperity and happiness to ourselves, our families and all that belong to us.

In conclusion, gentlemen, be assured that whoever you may select to fill the chair from which I now retire, shall receive at my hands a cordial support, and that I shall continue to do all in my power to advance the interests of this Association.

A NEW SURGICAL NEEDLE.—This needle is so constructed that the silver wire, instead of being passed into the eye as in the ordinary needle, is screwed into the posterior part of the shaft, so that the wire appears as if a continuation of the needle. The wire can be removed at pleasure, or a new one introduced. There is no drag in stitching wounds, as is often the case when the needle is being pulled through the margin of the wound, owing to twists and quirks in the wire. The contrivance is a really good one, and we have no doubt it will sooner or later supersede the old form in the application of wire sutures. For sale by Mr. Bailey, 205 Yonge St., Toronto.

NEW JOURNALS.—The first number of the *Archives of Medicine*, a Bi-Monthly Journal edited by Dr. Seguin of New York has come to hand. It contains some excellent articles from Prof. Thomas, Dr. Heitzmann, Dr. Delafield, and others, and promises to be a useful and valuable addition to our periodical literature. It is published by G. P. Putnam’s Sons. Price \$3 per annum.

The St. Louis *Courier of Medicine* is another new venture of more than ordinary promise. It is published monthly by the Medical Journal Association of Missouri. Subscription \$3. per annum.

The first number of the *L’Abeille Medicale* (The Medical Bee), a new French journal, published in Montreal, has just come to hand. We admire the candour with which it is announced as “the organ of the School of Medicine and Surgery,” and not,

as is usual in such cases, “to fill a want long felt.” It has occasioned us some surprise that more than half of this, which may be considered in every sense a specimen number, should have been devoted to the subject of *monstrosities*. While wishing the new Journal success, we cannot but express our regret that any medical school in this country, should feel itself compelled to support a medical journal.

PRESENTATION.—On the 25th ult., Dr. R. A. Pyne, who is about retiring from the service of the Provincial Lunatic Asylum, Toronto, was made the recipient of a flattering address, accompanied with a valuable present, consisting of a surgical case and several medical books, by the medical officers and attendants of the institution. Dr. Lett, who occupied the chair, expressed the sincere regret of all, at the departure of Dr. Pyne from the institution. Dr. Clark also expressed himself in a similar way, as he had proved himself a most efficient officer.

PHARMACEUTICAL.—Physicians are reminded that B. A. Mitchell & Son, 114 Dundas Street, West London, Ontario, have a complete assortment of Surgical Instruments and Appliances. This well known house has acquired for itself a well founded reputation for pharmaceutical preparations, and is one of the most complete establishments of its kind in the west. Dr. Mitchell, the manager, devotes all his time to supplying the wants of the profession, and respectfully solicits their patronage.

BABY-CARRIAGES.—Baby-carriages have been condemned by the Berlin physicians, in cases where the little ones sit facing their nurses and are pushed backward. The natural desire of the eye is to draw nearer to what it sees, and the practice of reversing this normal order of things and causing surrounding objects to recede is liable to affect injuriously the development of both sight and brain.

SUSPENDED PUBLICATION.—The publication of *The Doctor*, a Monthly Review of British and Foreign Medicine, has been suspended for a time, until the outstanding accounts have been cleared off.

THE MENTAL CONDITION OF PASSANANTE :—Tarantini the counsel for the defence of Passanante the would-be assassin of King Hubert of Italy, has asked for a commission of distinguished medico-psychologists, to enquire into the "physico-moral state" of the criminal. The greatest respect, to their honor be it said, is always paid by both the Bench and the Bar of Italy to the opinion of the medico-psychologist.

APPOINTMENTS.—Dr. A. C. Smith has been appointed a member of the Board of health of Tracadie Lazaretto, N.B. Dr. Blackader has been appointed one of the attending physicians to the Montreal Dispensary. Dr. Beemer of the London Asylum, has been appointed resident physician to the branch asylum for refractory patients, London, and Dr. Brown of Beachville has been appointed to fill the position formerly occupied by Dr. Beemer.

The following medical gentlemen among others of the laity have been appointed Inspectors of Licenses for the following districts :—J. Kelley, M.D., Algoma ; R. Parker, M.D., Hastings, N.R. ; L. Harvey, M.D., Lambton, E.R. ; A. McLean, M.D., Lambton, W.R. ; W. McGill, M.D., Ontario, S.R. ; J. F. Dowling, M.D., Renfrew, S. R. ; and J. Ferguson, M.D., Russell.

CORONERS.—Byron Field, M.D., of Duffin's Creek, to be an Associate Coroner for the County of Ontario. W. F. Jackson, M.D., of Brockville to be an Associate Coroner for the Counties of Leeds and Grenville. B. F. Pearson, M.D., of Queensville, to be an Associate Coroner for the County of York. J. S. Munger, M.D., of Rodney, to be an Associate Coroner for the County of Elgin. H. Ross, M. D., of Brigden, to be an Associate Coroner for the County of Lambton. D. W. Ferrier, M. D., of Brougham, to be an Associate Coroner for the County of Ontario.

MEDICAL EXAMINERS, TORONTO UNIVERSITY.—Dr. Osler, Montreal, Physiology and Comparative Anatomy ; Dr. Malloch, Hamilton, Surgery and Anatomy ; Dr. Joseph Workman, Medicine and Therapeutics ; Dr. D. Clarke, Midwifery and Medical Jurisprudence ; Dr. W. H. Ellis, Chemistry ; Dr. C. S. Minot, Boston, Botany.

The death of Dr. Herman Beigel of Vienna is announced in our British exchanges.

PARTNERSHIP.—Dr. M. McCrimmon, graduate of McGill College has entered into partnership with Dr. Buck of Palermo, in the practice of medicine.

The University of Dublin has lately conferred the degree of LL.D. *honoris causa* upon Lord Dufferin, Earle Rosse and Prof. Roscoe, the distinguished chemist.

Dr. J. B. Biddle, Prof. of Materia Medica in Jefferson Medical College, Philadelphia, died on the 19th ult., after a short illness.

Books and Pamphlets.

LECTURES ON BRIGHT'S DISEASE OF THE KIDNEY. Translated by H. B. Millard, M. D. New York : Wm Wood & Co. Toronto : Willing & Williamson.

This able work by Dr. Charcot, is divided into seven lectures, treating of the following subjects ;—
1. Normal Anatomy ; 2. The same subject continued, with physiological considerations ; 3. Tubular Infarctus of Kidney, Urinary Casts, Summary of Bright's views ; 4. Contracted Kidney (Interstitial nephritis) ; 5. Subject continued ; 6. Large, White Kidney (Parenchymatous nephritis) ; 7. Scarlatinous nephritis, (Amyloid kidney). In the third lecture Dr. Charcot pays great attention to the subject of urinary casts ; he considers that information being derived from them of the anatomical condition of the tubes whose internal moulds they represent as practically open to doubt. That only the casts formed in Henle's loops or in the junctional canals and collecting tubes, can, according to all appearances, pass into the urine, on account of the small calibre of the descending branch of the loop. That this fact detracts greatly from the value of clinical investigation of casts, since the very ones whose existence it would be of the most importance to discover, seldom find their way into the urine. That they are not, therefore, faithful messengers, announcing to the clinical observer the anatomical condition of the kidney—mirrors reflecting the various renal lesions. Hyaline casts may be found in the urine in normal condition ; they may be met with when there is no albuminuria, and the lesions of Bright's disease may exist without any casts being found in the

urine. The casts are formed in the kidney, but retained in the pelvis. A case of this nature is recorded by Mr. Ackerman (*Centralblatt*, 1872, p. 606). Dr. C. considers Bright's disease a class comprising several distinct species, not only from an anatomo-pathological point of view, but as regards etiology and symptomatology. The three varieties are parenchymatous nephritis, interstitial nephritis, and the amyloid kidney. The opponents of these views in England have been Drs. Todd, Wilkes, Quain, G. Johnson and others. Dr. C. considers that the more or less imperfect elimination of the products of renal secretion in individuals, the subjects of interstitial nephritis, has the effect of engendering in them an alteration in the crasis of the blood which renders them liable to certain inflammatory diseases, *e. g.*, bronchitis, pericarditis, pneumonia, endocarditis. The other complications which may supervene in interstitial nephritis are alterations in the vessels, arterial aneurysm, epistaxis, hæmatemesis, uterine hæmorrhage and intracerebral hæmorrhage. Dr. C. is of the opinion that consecutive atrophy in the case of parenchymatous nephritis, or large white kidney, is effected by the following mechanism: the epithelium, after having become fatty, undergoes at certain points a real liquefaction, in consequence of which the fatty granulations become free; some pass into the urine, others are re-absorbed, and it is under such circumstances, according to the observations of Beer, that the lymphatic spaces are filled with fatty granulations. Scarlatinous nephritis is confounded by many authors with that of parenchymatous nephritis. The opinion that scarlatinous nephritis is the point of departure of permanent lesions attributable to the large white kidney, he considers to be founded on no decisive observations; further, that it does not appear that scarlatinous nephritis has ever culminated in the production of contracted kidney. The principal clinical phenomena that aid in the recognition of amyloid degeneration of the kidney are habitual albuminuria, persistence of œdema, patient phthisical, or suffers from syphilitic cachexia, considerable swelling of liver and spleen, unmanageable diarrhoea of a watery and painless character. Want of space will prevent any further analysis of this most interesting work. Whatever may be thought of Professor Charcot's views of the various forms of renal alteration, none can refuse to him the

merit of a profound thinker, and a most sagacious observer—the philosophic character of his views being at once a record of the knowledge of the day and of the genius of their author. We would advise our readers to send an order to Messrs. Wilking & Williamson for a copy of a work that, we are well assured, will afford them much instruction and ground for thought.

A MANUAL OF BANDAGING. By C. H. Leonard, A. M., M. D., of Detroit, Mich. With over 100 illustrations. Price, \$1.50.

This will be found a very useful manual for those who desire to make themselves thoroughly proficient in the art of bandaging.

CONSUMPTION AND ITS TREATMENT WITH HYPOPHOSPHITES, by J. A. McArthur, M.D. (Harv.) Lynn, Mass., Boston: Mudge & Sons.

USE OF THE SOLID RUBBER BANDAGE IN ECZEMA AND ULCERS OF THE LEG, by L. D. Bulkley, A.M., M.D. New York: G. P. Putnam's Sons.

Births, Marriages & Deaths.

On the 22nd of January, T. M. Howe, M.D., of Fordwich, to Mary, eldest daughter of the late A. C. McDowell of Manitoba.

On the 4th ult., J. S. McCallum, M.D., of Smith's Falls, Ont., to Janet, second daughter of H. Clarke, Esq., Montague.

On the 18th ult., at the residence of the bride's uncle Dr. Clement of Napanee, M. I. Beeman, M.B., to Miss Lillian Henault.

On the 8th of February, at Cobourg, of pneumonia, Wm. Wade, M.D., L.R.C.P., and L.R.C.S., aged 38 years.

On the 11th ult., Jas. A. Chambers, M.D., of Greenbush, Ont. aged 73 years.

In Toronto, on the 5th ult., Duncan Campbell, M.D., in the 67 year of his age.

In Montreal, on the 18th of January, H. C. Fuller, M.D. C.M., aged 38 years.

At Knocklong, Ireland, on the 29th of Nov. '78, T. E. Hayes, M.D., C.M., in the 40th year of his age.

At Dunham, Que., H. N. Curtis, M.D., in the 50th year of his age.

At Dartmouth, N.S., on the 2nd ult. J. J. McKenzie, M.D., after a short illness.

On the 28th June, 1878, Dr. Gaucher, of Milton, Que., aged 38 years.

THE CANADA LANCET,

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Original Communications.

ADDRESS DELIVERED BEFORE THE BATHURST AND RIDEAU MEDICAL ASSOCIATION.

BY J. A. GRANT, M.D., M.R.C.P., LOND. & C. OTTAWA,
PRESIDENT.

GENTLEMEN ;—The important duty now devolves upon me, at the present annual meeting of our Association, to offer a few observations on some points of interest which have come to the surface during the past year, and chiefly through the untiring exertions of the recognized workers in our noble profession. However, before doing so, I must thank in an especial manner the members of this division for my election to so important an office as the one I now have the honor to occupy. During the five years which have passed, many valuable papers have been contributed by the members of the Association, giving evidence of earnest thought in working out many of the interesting problems developed by disease in the human system. Some of these contributions have already appeared in our medical journals, and others yet unpublished will, I trust, in time follow. Practical data, the outcome of patient and painstaking observation are always of service, and thus are the members of our profession enabled to sum up the result of their efforts in staying the progress of disease, and at the same time giving tangible form and expression to those various manifestations which constantly crop up during the discharge of the onerous duties of a professional life. From our midst within the past few months, an honorable and painstaking member of our profession has passed away. In the performance of his duties at Pembroke, the lamented Dr. Desloges made many warm friends, and the record he achieved was alike creditable to the French nationality and to the medical profession. In

thus paying a tribute of respect to one of our worthy fellow-laborers, I feel satisfied it is but the expression of an opinion fully endorsed by this entire Association. The first duty which devolves upon me on the present occasion, is to congratulate the Society on the increase of its members and its visible additional vitality. Many have come here to-day at considerable inconvenience, but our profession is one of well-known self-sacrifice, and it is by your recognized energy and determination in the pursuit of science, that you have thus far been enabled to make our Rideau and Bathurst Society quite an institution in the land. There are, it is true, strange opinions existing as to the medical profession in Canada, with many in the mother country, who should certainly know more as to the existing progress of medical matters in this country. Do we not receive our information from the same fountains of scientific medical truth? Have we not the same literature? Are not many of our professors and general practitioners educated in the best schools of London, Edinburgh, Dublin and Paris? and up to the present our apparent provincialism has enabled our young Canadian medical students to carry off some of the highest honors of the "Parent State." A few weeks ago, Dr. Clarke, of London, delivered here an admirable address on the subject of Phthisis, and in conclusion expressed himself surprised at the status of our profession in Canada. There is an elevated and educated tone in our ranks, and our earnest desire is, while forming but a Provincial link in the world-wide professional chain, to so conduct ourselves as to uphold the honor and dignity of a profession which guards *the lives of the land*, and in the discharge of that responsibility, occupies a worthy and honorable position of recognized primary importance. During the progress of scientific investigation within the past year, many new points of interest have appeared, which have doubtless, already, received your attention. At present I shall briefly advert to a few of the most note worthy, in order to elicit the result of your own experience, for it is thus that intellectual friction develops new lines of thought and brings out new ideas, which when carried to the bedside are found to be of practical utility. Thus each meeting adds to our store of knowledge, and sends us to our respective spheres of opera-

tion better able to grapple with the many difficulties which arise in the practice of our profession. Of the various diseases observed in our section of country, few have attracted a greater degree of interest than diphtheria, and chiefly through the unfortunate circumstance, the death of the Princess Alice, which was a source of deep regret to the whole medical profession. It may with truth be said, that all classes alike in this country sorrow for the loss the Queen has sustained. Diphtheria as a disease has long been known, and its etiology shows it to be not of a continuous character, but rather of apparently unconnected outbreaks and epidemics. It has been traced back as far as the days of Aretæus, and during the 16th and 17th centuries it was observed in Spain, Italy, Sicily and various other parts of Europe, the records leaving no shadow of doubt that the disease which then prevailed was "*genuine diphtheria*." In the next century it was epidemic in several of the more northern parts of Europe, including Great Britain and France, and also in several parts of the Continent. In 1818 diphtheria made its appearance in Tours; and from that date it has been recorded by various writers as epidemic in France, Great Britain, Canada and the United States. In 1859, a series of questions were framed by Mr. Simon, then medical officer of health for the Privy Council of Great Britain, as points for enquiry in tracing the history of the disease, which resulted in much practical observation. These questions related to the general features of the districts effected; to the duration, extent and novelty of the epidemic in each district; to the local and personal conditions predisposing to the disease; to the degree of communicability of the affection; and, lastly, to the symptoms and forms of treatment adopted. Such heads certainly are of great importance, if carried into operation in the various infected districts in this section of country. The disease was frequently found to be communicable to persons under the same roof. It was also observed to cling to houses once the seat of the disease. It was also considered that if the poison did not arise *de novo*, the material cause was capable of existing and moving from place to place independently of its subjects, and in some instances the transference of the disease was found to be very remarkable. Such also were the characteristics of this disease, as observed in the Ottawa Valley dur-

ing the severe epidemic of 1860 and '61. In the early part of the present year, several outbreaks occurred—at the Desert, Gatineau, Hull, Papineauville, and the City of Ottawa, manifesting varied degrees of intensity. As is usual during such epidemics, a considerable amount of ordinary sore throat has prevailed, but not in any manner lessening the immunity from subsequent attacks of undoubted diphtheria. The country districts adverted to, in which this disease has recently been epidemic, have been known as healthy sections heretofore; high and elevated; well watered, and thoroughly drained. The few cases which came under my observation this winter, were in the best situations of our city, and in families where every possible degree of care and attention was bestowed upon the children attacked. So much has such been the case, that I have not been able to arrive at any definite conclusion concerning the etiology of diphtheria. I certainly incline to the opinion of Dr. Morell McKenzie, that the exciting cause of this disease is "a specific contagion." My own observation does not lead me to favor the opinion so vigorously advocated by Oertel, that a "minute fungus is the essential contagium" of the disease. The recent researches of Dr. Beale demonstrate beyond a doubt, that the presence of fungi in diphtheritic deposits, is not of importance, inasmuch as vegetable germs are present in almost every part of the body, in the normal state. These data are also confirmed by M. Duchamp and other able observers. At a meeting recently held in St. John's Wood, London, and presided over by Professor Huxley, the conclusion arrived at was, that diphtheria was due to defective drainage. The milk supply of the neighbourhood was also set down as the cause of the outbreak of the epidemic. The escape of sewer gas has also been considered as a prolific source of the disease. With all these defects non-existing I have seen the disease in full force, and therefore hesitate to express an opinion as to its precise origin, involved as it is in considerable doubt, not explicable even by the process of evolution, so ably advocated by Dr. Thorne, at the Epidemio-logical Society, London, in May last. Dr. Morell McKenzie, in his recent able paper on diphtheria, remarks: "There are few cases in which systematic feeding does not constitute the most important part of medical treatment, and that the administration of

alcohol is almost always advisable." In observing the course of this disease, and its peculiar outcome—a leathery, parchment-like membrane in the throat, I concluded it was a blood poison, determined by selective affinity to the mucous membrane of the throat usually embracing the tonsils and uvula, and occasionally extending to the trachea and posterior nares. Unmolested, the entire vigor of the morbid blood poison gains full force, and complete active elimination towards the formation of the throat membrane. The activity of the circulation once directed towards the skin, diverts, in a great measure, the ordinary current of elimination towards the throat, and thus renders incomplete the parchment-like membrane. Under these circumstances, the mustard baths direct the activity of the circulating medium towards the skin, and divert gradually the natural course of parchment elimination. Thus vigorous action, once established throughout the cutaneous surface, brings to our relief nature's most powerful safety-valve in various forms of disease. These baths are usually carried out once daily, for three or four days in succession, as circumstances demanded. The throat brushed, usually twice daily, with tinct. iodine, and applied externally as well, over the swollen glands, and followed by the frequent application of sponges, saturated in hot water, much preferable to the ordinary flax-seed poultices; milk diet and beef tea vigorously plied throughout the entire treatment. Under this method the results have been most satisfactory.

In over 30 cases of sore throat, noted during December, 1878, and January and February, 1879, only five were genuine diphtheria, all of which recovered. These were ushered in by well-defined constitutional symptoms, such as high temperature, headache, sickness at the stomach, and vomiting, well marked prostration, and usually a desire to sleep. With few exceptions, the disease was confined to children. As to the treatment, I certainly attach much value to nourishing diet, but the point of primary importance is the diversion of the diphtheritic poison from the throat, which is rapidly brought about by the vigorous use of mustard baths. Once thorough action of the skin is thus established, the formation of the membrane in the throat subsides, and even that already formed, loses its morbid power, and relaxes its hold on the mucous membrane. Prior to the introduc-

tion of this treatment, the mortality in my own practice, under the old system, was very considerable, whereas at present the results are of the most satisfactory character. Beef tea and milk diet were freely administered; alcohol seldom; quinine; iron in various forms; liquor ammon. acet., salicylic acid, sulpho-carbolates, sulphur and chlorate of potash, have been found useful as circumstances dictated. Antiseptics, such as chloride of lime and carbolic acid, are certainly valuable. In Canada, croup and diphtheria are considered as entirely distinct diseases, in which opinion by far the greater number of American authorities are also agreed. The committee of the Royal Medical and Chirurgical Society, appointed in 1875, reported in October last, and the result may be summed up as follows: "That the term croup be henceforth used wholly as a clinical definition implying laryngeal obstruction, occurring with febrile symptoms in children. Croup may be membranous or not; due to diphtheria or not so. The term diphtheria is the anatomical definition of a zymotic disease, which may or may not be attended with croup. The committee suggested that the term *membranous laryngitis*" should be employed to avoid confusion, whenever the knowledge of the case is such as to allow of its application.

To our rural members we look for valuable information as to the history of sudden and isolated attacks in their districts, as such data would be of great service in arriving at a correct conclusion as to the proper history of this disease, which has made itself felt both at home and abroad. The restriction of diphtheria, by proper sanitary precautions, is a matter of great moment. Until within a recent date, small-pox was the only disease in which sanitary regulations were strictly enforced. The same precautions are certainly necessary in diphtheria. In our public schools careful enquiry should be made, and a certificate of safety procured from the attending physician prior to the re-admission into the school of those children coming from families where diphtheria has been known to exist. By the strict enforcement of these sanitary precautions, by the local Boards of Health, where such exist, much good may be accomplished, and in carrying out the necessary regulations, the public will receive the hearty co-operation of the medical profession. At present

no subject is so widely and so generally discussed as *public health*. The public are seeking information on the sanitary duties by which diseases are prevented and health protected in the widest acceptance of the term. The recent pestilence of yellow fever in the South, and the present plague in Russia, have combined to arouse more than ordinary degree of interest in such matters. Should the health of a city, town or village, not occupy a place even superior to the protection of real estate? Fortunately there is at present a more than an ordinary degree of right-thinking in this direction. The loss of human life by preventable disease implies exceedingly important considerations, and it is time that such action should be taken as would place all sanitary matters on a sound and substantial working basis. In this country, a knowledge of private hygiene and domestic sanitation is required from every student of medicine, such being imperative as the basis of a sound medical education. In the Province of Ontario alone over 80 died daily from various causes. Of these 27 are children under five years of age; 10 are between the ages of five and twenty; and 30 between 20 and 60. Of these, it is estimated that fully one-third of the deaths are of diseases which might be prevented by proper sanitary precautions. What authority should be called into requisition in order to guard the people's interests? Was there ever a better opportunity for public men to give evidence of their determination to be progressive in the highest sense? The problem of health is simple, and necessarily so, when the requisite means to preserve it are so easy of access. Dr. Richardson, at a recent meeting of the Sanitary Institute, London, England, remarked "that there was nothing opposed to the establishment of a Minister of health, for whose creation there was overwhelming argument. Such an officer, placed in a central position, must be an authority, not a disciplinarian; a judge and a director, not a commanding officer; a collector and a teacher of all learning relating to health, not a dogmatic professor. The work of estimating life and death which now goes on, is the true basis of all our efforts." In a young country like Canada, it is true there is difficulty in introducing a "State Department of Health"; however, some action on the part of the proper authorities is necessary; for as science and social culture advance, the public

service of hygiene becomes more imperative. Provision by statute should be the order of the day, to secure the amplest possible means of sanitary improvement and public health care. Such are purely the material and ordinary requirements of personal safety, public safety, and political economy.

ON DISEASES OF THE EYE IN CONNECTION WITH AND DEPENDENT ON GENERAL DISEASES OF OTHER ORGANS AND THEIR DIAGNOSTIC VALUE.

BY ADOLPH ALT, M.D., TORONTO, LECTURER ON DISEASES OF THE EYE AND EAR, TRINITY MEDICAL SCHOOL, SURGEON TO THE EYE AND EAR DEPARTMENT, TORONTO GENERAL HOSPITAL.

(Read before the Canada Medical Association.)

It is a prevalent idea among general practitioners, and it seems to me, especially so in Canada, that modern ophthalmology has become so far separated from general medicine, as to constitute a precedent from which will result in the future a general breaking up of medical science into its branches; and, moreover, that even some knowledge of ophthalmology is either unnecessary or more or less useless to the general practitioner. That this is not so, every one at all familiar with the subject will readily acknowledge. Ophthalmology, it is true, has become such a large branch of medical science that no one can master it without devoting all his time and energy to it. However, no one can practice, and no one should dare to practice ophthalmology who is not perfectly acquainted with the principles of medicine. This is the stand-point of every true specialist, and to show you how our specialty, ophthalmology, brings us in our daily practice into contact with general medicine, and how impossible it would be for an oculist to sever the ties by which this specialty is united to general medicine, I thought it worth while to bring the following paper before this learned audience. It is, however, not my purpose to go into details, but will confine myself to those diseases which I suppose to be less known, and of more special interest. I further propose to show in the following paper, of what great value the diagnosis of the eye diseases may be to the diagnosis of general diseases; and how desirable it is, therefore, that every general practitioner—as is the

case in Germany and France—should have some knowledge of ophthalmology—far more than our Canadian schools enable their students to gather; and far more than the average Canadian student cares to acquire, (I speak from my own experience as a lecturer), since the high Court of medical knowledge of Ontario (the Medical Council) has not yet advanced so far as to put some knowledge of ophthalmology (to say nothing of otology) on the list of requirements exacted from *every* one desiring a license for medical practice.

RELATION BETWEEN ACUTE AND CHRONIC INFECTIOUS DISEASES AND DISEASES OF THE EYE.

Among the infectious diseases, the one which most frequently attacks the eye is syphilis. It causes *secondary* pathological conditions in nearly all the membranes of the eye; in one certain case (Mauz) even the primary ulcer was found upon the eyelids. The part of the eye which is most liable to syphilitic disease, is the uveal tract, especially the iris. Statistics have shown that among all the cases of *iritis*, from 50 to 60 per cent. are syphilitic. There is no symptom which at once would show that we have to deal with syphilitic iritis, unless there exist at the same time other evidences of the constitutional disease. However, there are some symptoms which, although found in non-syphilitic iritis, are most common in the syphilitic form. Syphilitic iritis mostly attacks both eyes; photophobia, lachrymation and pain are, as a rule, not very pronounced in the beginning, and the disease is more of a quiet chronic than of a vehement acute character. It often does not involve the entire iris, but is more or less localized. This localization is most pronounced in cases of *iritis gummosa*. Gummy tumors in the iris are, of course, an unmistakable evidence of general syphilis; they are, however, comparatively rare, and are seen only in about 3 per cent. of the cases. Gummy tumors have been found also in other parts of the eye. However, only those lying upon, or near the external surface of the globe may be recognized with certainty during life. The existence of isolated gummy tumors in the ciliary body and choroid has been proven only by post mortem examinations. Next to iritis in frequency is syphilitic *choroiditis*. Like iritis without gummy tumors, this affection has no special pathognomonic symptom. It is more frequently a

diffuse exudative choroiditis than a disseminate one, and involves generally the retina to such an extent that the pigment epithelium cells can easily grow into the latter, and we find then in later stages, a kind of pigmentary retinitis which very closely resembles the genuine pigmentary retinitis. Syphilitic choroiditis is one of the later symptoms of syphilis, while iritis is one of the earlier ones; moreover, it is mostly found in individuals of mature age. Since this kind of choroiditis nearly always involves the retina, it is often called choroido-retinitis. There is, however, also a genuine syphilitic *retinitis*. Its diagnosis as a symptom of syphilis is nevertheless just as uncertain as that of the former diseases. The same applies to the *optic neuritis* developed on a syphilitic basis. Syphilitic neuritis has that peculiarity, however, that it more readily yields to treatment than any other form of optic neuritis, and the patient may often regain normal sight, whereas in non-syphilitic optic neuritis this result could never be obtained. In these cases of optic neuritis we find sometimes also symptoms of brain syphilis. The latter, however, are more frequent in cases of simple *amblyopia*, without any abnormal ophthalmoscopic appearance. Paralysis of the external ocular muscles, and consequent diplopia, is more frequently observed than amblyopia, without visible alterations of the background. These symptoms are often the very latest in the course of acquired syphilis, and the paralysis of the muscles very often appears only when the disease has been perfectly latent for a good many years. There is one syphilitic eye-disease which is most frequently the result of hereditary syphilis, *i. e.*, diffuse parenchymatous, or as it is often wrongly called, interstitial keratitis. Hutchinson, who was the first to call the attention of the profession to this fact, maintains that all the cases of diffuse parenchymatous keratitis in children bear symptoms of hereditary syphilis, especially the unformed teeth; this, however, is not the general experience. With regard to the treatment I will only mention that it must, of course, be chiefly constitutional, supported by such local remedies as the case may require. No other infectious disease causes as frequent disease of the eye as syphilis: however, some of them do so, often enough to be mentioned here.

Diphtheria very seldom attacks the eye when it is manifest upon the mucous membrane of the res-

piratory organs. If it does we find diphtheritic conjunctivitis characterized by a hard, whitish infiltration of the lids, causing extreme pain, and rendering, in an advanced state, the lids so stiff that it is impossible to turn them. The intense pain is caused by the pressure of the infiltration upon the nerves. Cold and cleanliness are the only treatment required until the diphtheritic membrane begins to dissolve. In the state of purulent conjunctivitis which follows, the usual remedies may be applied. Only in a few cases does diphtheritic conjunctivitis pass by without a lasting injury to the globe. Abscesses and ulcers of the cornea, which lead either to leucoma or leucoma adherens, or phthisis, are the most frequent results. As another result of diphtheria of the respiratory organs, we find more frequently paresis of accommodation. This pathological condition is sometimes combined with paresis of the sphincter pupillæ, and consequent dilatation of the pupil; in most cases, however, we find no visible sign of the disease. The patient is perfectly unable to accommodate, and consequently unable to read or write. It is not unfrequent to hear of children, (where it is mostly observed) suffering from this pathological condition; and they are sometimes punished by teachers and parents for pretending not to be able to read, because these observers could not detect anything wrong with the eye. This paresis of accommodation disappears, as a rule, in from 4 to 8 weeks, without treatment. Extract of calabar-bean and electricity may help to accelerate the process of recovery. If necessary, the patient may be furnished with a glass enabling him to read at a distance of twelve inches, which at the same time removes the inability of doing near-by-work, and has some influence upon the healing by inducing some exercise of the muscles of accommodation.

During the course of *variola*, and afterwards during convalescence from this disease, a number of external diseases of the eye have been observed, as conjunctivitis, parenchymatous keratitis, ulcer and abscess of the cornea, and *variola* of the eyelids. While some authors maintain that these diseases of the conjunctiva and cornea are the result of *variola* pustules, Landsberg tried to prove that in their beginning, they in no way differ from the same diseases happening when there is no *variola* present. Iritis and cyclitis have been seen

to follow an attack of *variola*, and are then called iritis and cyclitis *post-variolosa*.

Scarlet-fever is sometimes accompanied by amblyopia or even amaurosis. These eye affections are undoubtedly in direct connection with the affection of the kidneys. They occur, as a rule, in the stage of desquamation, are combined with albuminuria, disappear in a few days, and are to be considered as a symptom of uræmia. The ophthalmoscope does not reveal any pathological changes in the background of the eye during these affections.

In *puerperal fever*, as well as in all kinds of pyæmia a destructive purulent choroiditis is not unfrequently met with. This kind of purulent choroiditis has been called metastatic, and is most frequent in pyæmic diseases of the female sexual apparatus. It is generally admitted now that this metastatic choroiditis is caused by embolism of some of the ciliary vessels. My own investigations have not enabled me to ascertain this point. Amblyopia and amaurosis are sometimes also found after *typhus fever*. They are caused by the low state of nutrition of the patient, and the weak action of the heart. I had once occasion to see such a case in consultation. The patient was a child, convalescent from a severe pneumo-typhus. There was convergent squint and perfect amblyopia. I told the parents that under tonic treatment it would all disappear as soon as the patient would become stronger, and, as I had predicted, after several weeks amblyopia and strabismus were totally gone. Purulent choroiditis, probably of metastatic character, is also but rarely met with in cases of typhus fever.

Chronic poisoning with *lead*, *tobacco* and *alcohol* also produce diseases of the eyes. The eye diseases brought about by tobacco and alcohol poisoning, lead the patient generally at once to the oculist, because he cannot recognize any other pathological condition as easily as he becomes aware of his failing sight. Whilst lead-poisoning generally produces inflammation of the optic nerve, with subsequent atrophy of this organ, tobacco and alcohol poisoning produce atrophy without signs of inflammation. These patients are generally color-blind to some degree, and frequently we find defects of the visual field. It seems doubtful if the abuse of either tobacco or alcohol alone can produce all these symptoms; however, such patients are very

seldom found who do not indulge in both these habits at the same time. If they have enough energy left to discontinue alcohol and tobacco altogether, they are mostly cured, certainly always improved.

RELATION BETWEEN DISEASES OF SINGLE ORGANS AND DISEASES OF THE EYE.

We may pass rapidly over those combined with diseases of the respiratory organs, circulatory apparatus, and intestinal tract. The only eye-disease of importance, connected with disease of the respiratory apparatus, is found in chronic pneumonia or tuberculosis of the lungs, viz., tuberculosis of the eye. Whilst tuberculosis of the eye was formerly thought to exist only in the choroid, tubercles have recently been found in nearly all the tissues of the eye-ball. When first detected, this tuberculosis of the choroid was hailed as a valuable means of diagnosis in tuberculosis of the lungs. This is, however, not so in all cases, since ocular tuberculosis is not always present, and the occurrence of primary tuberculosis of the choroid has of late been several times observed.

The most important affection of the eye in diseases of the heart, is embolism of the central retinal artery or its branches, followed by sudden total or partial blindness of the affected eye. Patients subject to this affection are seldom found to survive long.

Among the diseases of the alimentary apparatus, *icterus* and *leukæmia* are the only ones to cause more important eye-affections. A common affection during jaundice is that the patient sees everything in a yellow tint. I had once occasion to examine such eyes, *post mortem*, and found the outer layers of the retina containing a large amount of little brown molecules, deposits of bile-pigments. Hemorrhages in the retina are also found in this disease.

In leukæmia some authors have observed a special kind of retinitis, *i. e.*, leukæmic retinitis, characterized by the yellow tint of the retina. In other cases it was totally wanting.

RELATION BETWEEN DISEASES OF THE SEXUAL APPARATUS AND EYE DISEASES.

Syphilis being not essentially a disease of the sexual apparatus, was spoken of when we treated of the connection between infectious diseases and eye-diseases. Although *gonorrhœa* might be count-

ed under the same head, I think its place is better here. *Gonorrhœa* has often in its wake the so-called gonorrhœic iritis. Although this is doubted by some authors, the large majority acknowledge it. This iritis is found especially in cases of chronic *gonorrhœa*, and there are cases on record where, with each new affection of the sexual organ, the iritis recurred. It seems, moreover, that gonorrhœic iritis is mostly found in cases where the *gonorrhœa* was combined with either simple pain in the joints, especially the knee-joints, or actual arthritis *gonorrhœica*. I have seen several cases where, some weeks after the infection, inflammation of the knee-joints occurred, and was followed by iritis in one or both eyes. I may merely mention here that gonorrhœic conjunctivitis is found after direct inoculation of the virus, a fact too well known to be here dwelt upon. A very important, though happily rare disease, which seems to be in direct connection with some disease of the sexual apparatus, especially in women, is "Basedow's" or "Graves'" disease. The symptoms of this disease consist in palpitation of the heart, struma and exophthalmus. With the protrusion of the eyeballs is combined another symptom, which is to be regarded as pathognomonic of this affection, *i. e.*, a lack of motion in the upper eyelids. When these patients look downward the upper lid does not follow the eyeball as in the normal condition, but lags behind so as to leave a strip of sclerotic tissue exposed between the ciliary margin of the upper lid and the upper margin of the cornea. The protrusion of the eyeballs may finally become such as to prevent the lids from closing over the eyes. Ulcerations and abscess of the cornea, with complete destruction of the eyes, have been seen to follow this pathological condition. The disease is found especially in women, only about 8 per cent. of the patients suffering from it being of the male sex. While in women the connection between this disease and a disease of the sexual organs seems no longer doubtful, there is only one case on record where in the male such a connection has been found.

There is another disease of the eyes which depends on sexual disorders, and especially on chronic parametritis in women, which has been called *kopiopia hysterica*. This pathological condition of the eyes has to be looked upon as a reflex hyperæsthesia of the optic nerve, and the fifth pair, and

is somewhat similar to the symptoms of asthenopia. The chief symptoms are pain and photophobia. The pain may be constant or come on in spells. It may come on only when the eyes are used, or without any apparent cause. Light and refraction are generally normal. The disease is more frequent in women than in men, and is found among the better classes only, and is always combined with general symptoms. It mostly disappears without special treatment, but sometimes only after many years. *Castoreum canadense* and *valeriana* may have some alleviating effect.

RELATION BETWEEN DISEASES OF THE URINARY ORGANS AND DISEASES OF THE EYES.

A disease which is often first seen and diagnosed by the oculist is interstitial nephritis, or Bright's disease. This is due to the characteristic albuminuric retinitis and neuro-retinitis, which occur often where the patient is in no way aware of the serious affection of the kidneys he is labouring under. Generally the disease of the kidneys is far progressed when the eye symptoms are noticed. There are, however, a few rare cases, where the eye-affection is present before any other symptom will support the diagnosis of Bright's disease. Patients showing albuminuric neuro-retinitis are almost invariably doomed to an early death. The treatment in these cases is merely referable to the kidney disease, as the eye-disease is only a symptom, and will get better only when the former does so. The albuminuric neuro-retinitis may render the patient's sight very dim; in some cases, however, it is only a little affected, until general uræmic symptoms occur. One of these is uræmic amaurosis. The patients may, in consequence of the uræmia become perfectly blind for several hours and days. I remember having once seen a case in which the patient was blind for three days. Light invariably comes back after these attacks, and they are repeated generally before death occurs. The uræmic amaurosis has been observed also during scarlet fever (as mentioned above), and in acute croupous nephritis. The ophthalmoscope does not reveal any alterations in the back-ground of the eye during these attacks.

RELATION BETWEEN DISEASES OF THE NERVOUS APPARATUS AND DISEASES OF THE EYE.

The eye is in the closest relation to the brain. Not only do the optic nerve and retina form a di-

rect continuation of the brain, but five pairs of nerves starting from the latter, enter the eye and its surroundings, viz: the oculomotor is, trochlearis, abducens, trigeminus and facialis. Moreover, the blood-vessels and lymphatic vessels of the eye are in direct communication with those in the cranial cavity. It is therefore *a priori* to be assured that any brain disease may directly influence the functions of the eye. And this is true to such a degree that some enthusiastic minds even tried to found a kind of systematic *cerebroscopy* on the conditions of the latter organ. This has, however, proven more or less worthless.

Hemorrhages in the brain seldom cause any change in the eyes, since the patient generally dies before they can be developed. It has, however, been pointed out, that frequent small subconjunctival hemorrhages in persons of advanced age, may confirm the prognosis of apoplexy. *Meningitis* and *cerebro-spinal meningitis*, often cause neuritis optica and neuro-retinitis. Of more frequent occurrence in these diseases, however, seem to be affections of the uveal tract, especially purulent iritis and choroiditis, with destruction of vision. This seems to be more frequent in children than in adults. There is another amaurosis observed as the result of meningitis, which shows at first no ophthalmoscopic signs, and is produced by an exudation around the chiasm of the optic nerves, with subsequent constriction of this organ. Paralysis of the ocular muscles and purulent infiltration of the orbital tissues, with chemosis and exophthalmus are also, but less frequently, found in meningitis. They may occur without any injury to the eyeball. Any pathological condition in the cranial cavity, which produces an increase of pressure, may at any time cause oedema of the optic nerve, optic neuritis and neuro-retinitis. This neuritis has no special pathognomonic symptom. It is caused either by an obstacle in the way of the venous blood returning from the eye, or by an over-filling of the inter-vaginal space of the optic nerve, and subsequent compression of the latter (and its blood-vessels). When this condition is present the sight may be only slightly altered; in other cases it is very much reduced. The diseases of the brain which cause these changes in the eye, are: mostly tumors, large hemorrhages, abscesses, hydrops of the ventricles, tuberculous meningitis, and diffuse

encephalitis. It must be mentioned, however, that all of these diseases are met with frequently enough without causing any eye-trouble at all. With regard to the diagnosis the conditions of the eyes may be of great value, and they are sometimes such as to allow even of a more direct localization of the brain disease than any other symptom. I speak here especially of cases showing a defect in the visual field, and especially of hemiopia. There are two kinds of hemiopia (an affection in which one half of the visual field is wanting), *medial* hemiopia, where the two lateral halves of the visual field are dark, and the patient's right eye sees only what lies to the left from the point of fixation, and the left eye only what lies to the right from the same point—and *homonymous* hemiopia, where the two right or the two left halves of the visual field are wanting. These conditions can only be well explained if we assume a semi-decussation of the nerve fibres in the chiasm, which of late has been undoubtedly proven. The more frequent kind: *homonymous* hemiopia, is caused, as *post mortems* have taught us, by a pathological condition in one optic nerve tract between its origin and the chiasm.

Another eye disease connected with diseases of the brain, is paralysis of one or more nerves which go to the eyes, *i. e.*, the oculomotor, trochlear, abducens, and facialis nerves. Their origin is located at the floor of the fourth ventricle, and where we find such paralysis as a result of some brain disease, we may locate the latter in the same region. Diseases which impair the functions of the fifth pair produce two special eye-diseases: herpes of the cornea and neuro-paralytic ulcerations of the same membrane.

The spinal medulla has also some influence upon the condition of the eyes. How this comes to pass is as yet unexplained. The fact, however, is now well established, that *tabes dorsalis* (and sometimes wounds of the spinal medulla), produce myosis (contraction of the pupils) and atrophy of the optic nerve.

Not to trespass too much on your valuable time, I was obliged to treat this subject very superficially. It was, however, not my intention to give you here an elaborate lecture on a subject which is large enough to fill books with. I only intended to give you a hurried glance over it, in order to accomplish what I promised in the beginning of

this paper, namely, to show you that the oculist (as well as any other specialist) if he means to master his specialty, requires a full knowledge of general medicine, and on the other hand to show you how desirable it is for the general practitioner not to have too limited a knowledge of a branch of medicine which will so frequently aid him in the diagnosis of doubtful cases, and if the proper authorities here, as is the case in other countries, would take the necessary steps to force the student to acquire this knowledge, they would do him a great favor and humanity a greater one.

ADDRESS DELIVERED BEFORE THE WESTERN AND ST. CLAIR MEDICAL ASSOCIATION.*

BY DR. TYE, THAMESVILLE, PRESIDENT.

Gentlemen,—At the meeting of the Association in Detroit the question was asked, "Who will prepare papers for the next meeting of the Association?" A gentleman suggested that the President should read an address. To this proposal I thoughtlessly agreed. I can assure you, more than once I have regretted my promise. I have attempted to fulfil my promise, to establish a precedent to bind my successor to enjoy a similar opportunity. Previous to the passage of the present medical Act and its amendments, the state of the profession in Ontario was not entirely satisfactory. Its members were, however, equal to the occasion, and the means adopted for improvement were both radical and vigorous. The thorough preliminary examination, the almost complete independence of the teaching from the examining bodies, are the fundamental principles upon which our present system rests; a common door is thus open to all, so that all who can meet the conditions and wish to do so, may enter upon equal terms with every other person. The result is, the profession in Canada takes high standing both at home and abroad. Our matriculation examinations are accepted at the various medical colleges of Great Britain, and graduates readily pass examinations for memberships in the Royal Colleges. Canadian practitioners are highly estimated by our neighbors, and they are not ashamed to express a desire for medical organization equal to our own. The legislative enactments

* London Advertiser.

founding the present system of medical representation and legislation, has done much to consolidate and elevate the profession; yet we do not assume to be beyond improvement. The general profession and the Medical Council seem too far removed from each other, and there is not so much sympathy between them as there might be. The terms of office are too long. Three years are quite sufficient, so that the constituents may be more often enabled to express their views and call their representatives to account for their actions. A part of the examiners should be selected outside the Medical Council and teaching bodies. Some legislation respecting suits for malpractice is required; the time for bringing them should be limited, and proof produced that there is some reasonable ground for action. The majority of these suits are groundless, yet they oblige the defence to undergo a large amount of derogatory criticism and expense. Another point is quite necessary, that is the power to expel unworthy members. The actions of a few are so gross and degrading, that their full membership is a stigma to our name. The legal profession, I believe, have power to unbar members for certain offences; this action is not only necessary to punish offenders, but to prevent their recurrence. I must not forget that part of our laws which provides for the establishment of Territorial Medical Associations. One of the great needs of the profession was to be brought together, that we might know each other better, and thus learn to value each other more. It is such knowledge that makes us more tolerant and sympathetic. We institute codes of ethics, and it is well that we should do so, but they must be founded upon genuine regard and respect for those with whom we meet. This desirable result is produced in the most agreeable and profitable manner by these associations. I can testify that this Association has been of great benefit to many of its members socially, professionally, and financially; also. Harmony, mutual assistance, and appreciation have taken, in many instances, the place of their opposites. This good result would be, of course, greatly increased, should a larger number take part in this Association and steadily support it. However, there are many, whether residents in Chatham, Sarnia, Windsor or Strathroy, that are still faithful to its interests. I consider our legislative functions, such as tariff of fees, places of meeting, questions of ethics—are

quite subordinate to that more delightful and profitable part. The reading of papers and consequent discussions refreshes the mind of every participant, enables every one to measure himself and find out his own short-comings; he can feel his weak points, and see views that are erroneous; or it consolidates some views already entertained—adds new facts to the stock already acquired. We are too apt to get into grooves; these meetings help us to get out again. Professor Alonzo Clark says it is hard to keep the medical profession plumb, they have a strong tendency to swing from one extreme to another. Our mutual discussions will do much to keep us near the true centre. These meetings incite professional readings and studies, and render necessary closer observation of the varied and interesting phenomena every day presented to us. Professor Flint says much of his success is due to close observation and careful note taking. Facts of our own collection are the best premises from which to draw new conclusions. A paper containing any *new fact*, and properly applied, is worth many compilations from standard authors and periodicals. This Association can appoint committees whose duties shall be to gather statistics and other facts relating to important epidemics, such as cerebro-spinal meningitis, scarlatina, malaria, typhoid fever, etc. Facts of great interest may be gathered relative to climatic influence. Another field would be to note the various forms in which the laws of health are interfered with; for though we practise the healing art, we are yet the natural guardians of the public health. While speaking of the work of our Association, may I suggest that each member here to day make an especial effort not only to be present at our next meeting, but to induce another to come with him. We all can probably do more than we have hitherto, to make it the model Association of the Province. Our transactions are interesting and valuable papers, and will increase in value with our own efficiency. Medicine is now making a gratifying advance. Formerly it contained so much based upon routine ideas—so much of mystery and empiricism—that it was looked upon as an association of occult sciences. It has nobly won a much higher character. The assiduity with which the natural sciences have been cultivated has much to do with this elevation. The sciences of chemistry, physiology, and morbid anatomy have laid a foundation for

the clinical observer. Principles logically deduced from these sciences are well tested at the bedside. One is naturally the complement of the other. Weir Mitchell, in an article on "Nerve Section" in the October number of *Brain*, shows plainly that the work of the anatomist is completed by the clinician. The anatomist traces the distribution of the median nerve in the hand to the utmost limits of vision. The clinician shows by cases of median nerve-section that the distribution exists in parts hitherto unsuspected. Medicine, by this correlation, is daily approaching nearer to an exact science. Instruments of precision have been the means of much positiveness and exactness in this art. None has afforded more extensive and useful aid than the clinical thermometer, so much so that those once using are not content without its assistance. What a lesson to us that the clinical thermometer should be so long known and so lately adopted by the profession. How many more, equally important and useful, may be close to us and yet we do not see them. In the more scientific branches, the microscope and the spectroscope and the various other ingenious instruments of physiological and pathological research reveal a world of new facts. Medical literature is receiving most unusual additions in Ziemmsen's *Cyclopædia*. Another work, though not so extensive, yet of the highest merit, is Reynold's *System of Medicine*, now just completed in the fifth and last volume. We have few safer guides to practice than the writers of this *System*. Our relation to the State is receiving increased attention, and deservedly so. The State cannot dispense with the services of the profession. First, in respect to mental medicine, we have a large and increasing number of insane. The early detection of insanity and an appreciation of its causes is not only of importance to the scientist but to the general profession, for to these the case appears in its earliest days. Dr. Bucknill, in some admirable articles in the London *Lancet*, seeks to aid the general practitioner in coming to an intelligent conclusion. That many cases of mental aberration are due to physical causes, is becoming daily more apparent. In these cases the diagnosis of the condition is very essential, for in many instances relief may be procured by proper medical treatment. The cause and treatment of insanity must always continue chiefly in the hands of the specialist. This fact, however, does not relieve

the profession from greatly increased attention to the subject. I believe none will rejoice more than the specialist at an increased knowledge of this subject amongst outsiders. It is a matter of gratification that these unfortunate insane are so well treated, that humanity is exemplified, and cruelty frowned upon in the best of Institutions, and in no country in the world better than in our own. Preventive medicine is not pressed far enough yet, and we should make united and persistent efforts to stamp out diseases of a contagious nature. The undoubted power of vaccination is not properly valued by the public as it should be. Small-pox is steadily increasing in this country. It is time the State required general compliance with the prophylactic. Scarlatina is another disease that causes many deaths, and worse still, leaves a large number with serious impairment of health and vigor. When the severe epidemics of scarlatina occur, the afflicted families should be completely quarantined until the disease has passed, and complete disinfection obtained. Many lives and much suffering will thus be saved. Public hygiene has within a few past years received the most satisfactory attention, both from the State and profession in many countries. We all recognize the intelligence and zeal of our brethren in the Ontario Legislature in initiating this matter, and appreciate the liberality of that body in dealing with this matter. Although the committee had but a few days at their disposal, yet much was accomplished as a foundation for future work. Our Registrar-General's report is yearly becoming more reliable, and it is our bounden duty to do all we can to make it accurate. The public must be educated in this matter. The press is doing a good work. Good works are published that cannot fail to disseminate good ideas. Dr. Richardson's book, *Life and Health*, and *Diseases of Modern Life*, are suitable for non-professional readers. A series of health primers published in England and republished by the Harpers, are excellent things and cannot be found in too many households. We have abundance of work to do—and there are many problems to solve in the future. Our organization is a powerful means to concentrate and intensify our efforts. Our work is one of supreme interest, dealing with man as we do from the first faint flash of existence in the morning of life, onwards to the full sunburst of manhood, and again to watch its last glimmer in death. Let me con-

clude in the words of Dr. St. John Roosa, President of the State Society of New York, who says: "Let us who have with a united effort struggled for the prolongation of life, and the mitigation of disease, continue our advance in the same column with those who by cultivating the soil, by humane and wise legislation, and the administration of law, by the finding out of many inventions, by the inculcation of the principles of morality and religion, contended for the land and the time when the wilderness and the solitary place should be glad for them, and the desert should blossom as the rose, and the Eternal God should wipe away all tears from the face of man."

CASES IN PRACTICE.*

(REPORTED BY DR. GREENWOOD, HOUSE SURGEON
G. & M. HOSPITAL, ST. CATHARINES.)

Dr. Mack exhibited a specimen of substance vomited by a gentleman at Clifton, at intervals during the last two or three months of his life. The specimen had been sent to him for examination, to determine as to its being animal or vegetable in nature. Dr. Mack here alluded to the ease by which this question could have been settled by ignition, when ammonia could at once have been detected, by fuming hydrochloric acid, or even by the odor proving it to be animal, or simple carbonization proving it to be vegetable. Dr. Mack had pronounced the mass to be enormously hypertrophied gastric mucous membrane from malignant disease.

After death, Dr. Mack assisted at the post-mortem. The pyloric extremity of the stomach was the seat of extensive carcinomatous ulceration, having still attached a few masses of the same fungiform growths. What apparently confirmed the conclusion that the mass was not merely a morbid production, was that where once thrown off by ulceration at the base, no attempt at reproduction was to be found. The disease had not extended to the duodenum. It evidently commenced in the submucous tissues. Dr. Mack mentioned that before he received the specimen vomited, another portion had been subjected to the untutored analysis of a practical man, whose process consisted in eating a piece of it, upon doing

which he pronounced it to be vegetable matter, and inasmuch as he swore to the correctness of his discrimination his audience implicitly believed therein. Dr. Mack was extremely sorry that strict regard for scientific truth compelled him to reverse this decision, yet the expert remained happy in his first conviction.

Dr. Greenwood then presented a specimen of scirrhus of the pylorus, of which he gave the following history:

SCIRRHUS OF PYLORUS AND FUNDUS.

M. H., æt, 52; laborer; born in Ireland; admitted July 30th, 1878; complaining of slight diarrhoea, and frequent chills and fever. The family history was not obtainable. In regard to previous history, has always been a healthy man until one year ago, when he began to suffer very much from malaria, and a slight but continued pain in the epigastrium, frequently extending to the lumbar regions. Has indulged in the use of liquor rather to an excess. One year ago had one or two attacks of vomiting of blood, which occurred in the morning; he believed them to be due to his drinking so hard.

Present condition.—He is a man of average height, rather thin, sallow complexion; face wears a peculiar pinched expression, hair dark, eyes dark and bright, cheeks flushed, skin hot and dry, tongue dry, brown and fissured. Complaints of pain in epigastrium, not increased by pressure, and also of pain in the lumbar regions. Viscera of the thorax normal; spleen slightly enlarged; other organs natural; urine high colored, no albumen, but contains an excess of urates.

July 31st.—Pulse small and frequent, 110; temperature 102½°; skin hot and dry; pain in epigastrium; tongue dry and brown.

Aug. 3rd.—Tongue gradually becoming clean; complains of pain in left loin.

Aug. 11th.—Free from pain, complains of sleeplessness.

Aug. 16th.—Pain in left loin and shoulder; is very feverish; bowels constipated.

Aug. 24th.—Temperature normal, pulse full, soft and regular; but complains of continual and obstinate constipation.

Sept. 5th.—œdema of feet and ankles; slight diarrhoea.

Sept. 22nd.—Diarrhoea increasing; stools yellow, offensive and liquid.

*Read before the Medical Society for Mutual Improvement, St. Catharines.

Sept. 25th.—Diarrhoea still continues ; complains of slight pain in the epigastrium.

Sept. 28th.—There is a marked increase in the number and loose character of the stools ; pulse very weak ; temperature. 97°.

Oct. 1st.—Number of stools lessened ; complains of slight pain in the epigastrium, and sleeplessness ; takes very little nourishment.

Oct. 4th.—Diarrhoea again very severe ; nothing whatever seems to relieve it.

Oct. 5th.—Diarrhoea continues ; vomiting occurred, the ejected materials being chiefly nourishment he had taken ; patient died at 9 a.m.

An autopsy was performed by Dr. Greenwood eight hours after death. The body was much wasted ; muscles soft and flabby ; skin loose ; viscera of thorax, normal. The liver was nutmeg in character, of average size. The stomach presented a hard, irregular feel. On section it was found to be the seat of a scirrhous cancer, occupying the greater portion of the fundus, and pyloric extremity, forming an adhesion to the under surface of the left lobe of the liver, and to nearly the whole length of the transverse colon. The kidneys were of ordinary size ; the right presented three small cysts, the left presented one. The spleen was slightly enlarged. Two or three mesenteric glands were hard and indurated ; intestines normal.

It will be observed that the treatment is not mentioned, as it was merely supporting and palliative. The peculiar features of the case were the absence of the usual diagnostic symptoms of cancer.

CANCER OF THE LIVER.

J. McK., æt 55 ; laborer ; born in Ireland ; admitted Dec. 5th, 1878 ; complaining of pain and tenderness in the epigastric and left hypochondriac regions, slight fever and loss of appetite.

Family history good. In regard to previous history he has always been a healthy man, has indulged freely in the use of alcoholic liquors. About twenty years ago he suffered from the same symptoms for which he was admitted, but not as severe. He obtained relief, and never felt any inconvenience until two weeks before admission, when his appetite began to fail, bowels became constipated, shooting pains from side to side, pain and tenderness over the epigastrium and left hypochondrium, and sleeplessness.

Present condition.—He is a man of average dimensions, of a waxy complexion, and irritable disposition. Skin warm and dry ; tongue brown and moist. Appetite much impaired. Complains of pain and tenderness over the stomach and left lobe of liver, and of occasional lancinating pains from right to left hypochondrium, and through the chest to the left shoulder. Lungs, normal ; heart, apex beat visible $2\frac{1}{2}$ inches below and to the inner side of the left nipple, impulse strong ; dulness increased on percussion ; a systolic murmur is heard at the apex, transmitted around the side and heard at the lower angle of the scapula. The abdomen is enlarged, there is distinct fluctuation ; the abdominal veins are enlarged ; there is marked fulness above the free border of the ribs on the right and left sides, more especially on the right ; it seemed as if the extreme and rapid growth of the liver was pressing the ribs out ; there are distinct prominences to be felt over the left side of the liver ; dulness extends upwards as far as the 3rd rib, but does not extend below the free border of the ribs on the right side ; on the left side the dulness extends upwards to the 4th rib, and laterally as far as the border of the axillary region. The spleen, normal. Urine, high colored, sp. gr. 1030, slightly albuminous, no casts.

Dec. 6.—Temperature 100° ; pulse, 80 ; complains of restlessness, and pain in the epigastrium ; complete loss of appetite.

Dec. 8th.—Temperature 98° ; pulse, 78 ; bowels constipated ; slept well last night.

Dec. 10th.—Temperature and pulse normal ; patient cannot be induced to take nourishment, only a small amount of whiskey, so it was ordered to be administered per rectum.

Dec. 14th.—Pulse, weak, small and frequent ; œdema of lower extremities, and ascites are increasing.

Dec. 20th.—Slept well last night ; patient is sinking fast ; complains of lancinating pains passing from side to side.

Dec. 22nd.—Slight diarrhoea, supposed to be caused by the nourishing enemata ; temperature, 97° ; pulse, very small and frequent, 140.

Dec. 24th.—Is very low to-day ; temperature normal ; pulse can hardly be felt at the wrist.

Dec. 25th.—Patient expired at 9 a.m.

An autopsy was performed by Dr. Greenwood 24 hours after death. The skin had a peculiar

cachectic look, face thin; upper extremities thin and wasted; lower part of the chest and upper part of the abdomen particularly large; there is bulging between the ilium and the free ribs on both sides; lower extremities œdematous. The lungs were compressed to one-half their usual size. The heart was twice as large as natural; the left ventricle was very much hypertrophied; the points of three fingers could be passed into the mitral orifice; weighed 18 oz. The peritoneal cavity contained about 4 gallons of thin reddish fluid.

The liver is very large, irregular on its external surface, of a bluish red color, the irregularities being as large as a walnut, and when cut into, a soft but grayish white substance escaped. The right lobe was adherent to the under surface of the diaphragm; the left was fully as large as an ordinary right lobe; weight, 12½ pounds.

The stomach was natural; kidneys, normal; a few of the mesenteric glands were thickened and indurated. No trace of disease could be found elsewhere.

Correspondence.

THE "PROVINCIAL" UNIVERSITY.

To the Editor of the CANADA LANCET.

SIR:—I notice in the Form which students in medicine who propose to offer themselves for examination in the Toronto University are required to fill up and sign, the following question: "Are you an under-graduate or graduate in medicine of any other University?" It is also stated in the announcement of the Faculty of Medicine of Toronto University, that "that the scholarships and medals are not open to those who are at the same time under-graduates or graduates in medicine of another University." It is easy, therefore, to see the object of the question, and it is very much to be regretted that the senate should have adopted such a useless and unwise regulation. It can be of no possible use, because the honor students so debarred, can subsequently obtain their degrees in any University in which they may desire to graduate. It is unwise because it makes it appear to the public that the "national" University is hereafter to be carried on in open hostility to all other Universities, instead of becoming, as it should be, their exemplar. It is really no wonder

that an outcry has been raised against the management of the Toronto University, when such a regulation as the one here referred to, can find a place among the proceedings of the senate. The true policy would certainly be to encourage students to come up from all the Colleges and Universities in the land to the national University, rather than to throw restrictive barriers in the way. Of course students so admitted should be allowed to compete for honors only with students of similar standing, but no other question need be asked. No matter even if they be graduates of another institution, provided they have only recently obtained their degrees, they should be allowed to compete for honors along with other students of the same standing, as regards their collegiate year, as themselves. I venture to assert that in no other country in the world can there be found a similar regulation in regard to a national University. If enforced, it will either have the effect of shutting out many deserving students, or of forcing them to pass the examination of Toronto University before proceeding to any other University. A strong remonstrance should be made in regard to this matter to the Minister of Education, with a request to have the obnoxious regulation rescinded. The senate of Toronto University should not be permitted, by any restrictions of the kind here alluded to, to exclude any student, no matter where he has received his education, or of what University he is an under-graduate, from competing for honors and scholarships which are of a Provincial character. The honors of the University should be open alike to all the sons of our fair Province, without any other restrictions than those necessary to secure fair and honest competition..

Yours truly,

M. B. TORONTO UNIVERSITY.

March 12th, 1879.

INSANITY.

To the Editor of the CANADA LANCET.

SIR:—In reading the February number of your journal, I found a communication from Dr. Clark, in reply to my letter in a former issue. His reference to the Wright case in his essay on "Insanity," surprised me, but his letter is a greater surprise. The Dr. has adopted the course which all weak

defenders take, namely, that of using disparaging language towards an opponent. Such action may be fitting in the eyes of Dr. Clark, but all intelligent readers of the *Lancet* will think otherwise. He still claims the credit of having discovered the root of Wright's mental ailment, but I am perfectly satisfied that the Dr. would have given evidence for the Crown, and returned home satisfied that he had discharged his duty as a witness, had it not been for the suggestion I made to him in reference to Wright. The Dr. may ridicule this statement, but others also are of my opinion. The Dr. says my evidence was so vague that the Court would not accept it as proof of the prisoner's insanity. Is the Dr. shirking the question, or showing his artlessness? He evidently is not candid, or is very forgetful. Does he not remember, the whole medical test before the Court and jury was, did the prisoner know right from wrong at the time he committed the felony? I could not swear on the positive or negative side of the question, as I did not see Wright on the day of the alleged crime, nor did I know anything of his conduct on that day. But at the Court I did swear that the prisoner was insane on religion, women, and the alleged hostile feelings of his neighbours toward him. Dr. C. would have your readers believe that all the medical evidence was adverse to the prisoner, although in his letter he admits that I, in a small way, gave evidence for the defence. * * * What would the Dr. say in answer to the Judge's query: Did the prisoner know right from wrong? To such a query, I venture to say, his answer would be vague enough to assist the Crown. Dr. Clark says that he is "not responsible for my inferences, which are founded on a baseless fabric of imagination." I do not understand what he means; if he insinuates that I "fabricate," I hurl back the insinuation with scorn, and am quite willing to leave all questions of veracity to those who know me. As to the Dr.'s conduct in claiming it his duty not to interfere unless called upon by a process from the Court, I can only say that the medical profession is second to none in standing boldly forth in the true interest of humanity, and is ever imbued with a desire to aid to the utmost those who require it, so long as truth and right are on their side. Such was the object of the medical men in the defence of this case, more especially as the prisoner was a lunatic, and without a relative to assist him. It

was on these grounds that Dr. Clark, as a medical expert, brought for the purpose of deciding the *mental status* of the prisoner, should have boldly stood forth and given his evidence on the case as he found it to be, and not to have allowed a poor unfortunate man to be punished for a crime for which he was unaccountable.

Thanking you for inserting the former letter as well as this,

I am yours truly,

G. W. LING.

Wallacetown, Feb. 20, '79.

Selected Articles.

DISLOCATION OF THE HIP;

REDUCTION BY BIGELOW'S METHOD.

Following the suggestion in Mr. Rivington's article on this subject in *The Lancet* of Sept. 7th and 21st, 1878, Dr. Ormond gives the following note of a case recently under his observation.

J. H—, aged fifty, a miner, was at work on the night of October 4th, 1878, and whilst in the act of pushing a heavily laden tub up an incline a large quantity of stone fell from the roof of the mine, a height of four or five feet, upon his back, half burying him in the débris. As the weight settled upon his back, it forced him to the floor of the mine, to use his own term, "all of a heap." He was released as soon as possible and conveyed home. I saw him two hours later, and found him lying on his right side, with the left thigh flexed and adducted so that the left knee rested over the middle of the right thigh; the left leg was flexed and the foot inverted. The attempt to restore the limb to its normal position caused great pain. The left limb was two inches shorter than the right. On the dorsum of the ilium was a hard tumour, and anterior and superior to this a depression could be felt. My diagnosis was dislocation of the hip behind and somewhat below the acetabulum. Being five miles from home, in the middle of the night, and without the slightest warning of the nature of the case, I was not well prepared for such an accident. However, I tried manipulation—flexing, circumducting, and extending the limb; but this did not succeed, and caused such excruciating pain that, at the patient's request, I was obliged to desist. So, placing the man in as comfortable a position as I could, after ordering hot fomentations to be constantly applied, I went home, intending to return with chloroform and try again. But I did not return as I intended, being kept by an urgent case in another direction. My partner, Mr. Douglass saw him for me, and finding the man pretty comfortable, arranged that we should see

him together the following morning. This we did, and found matters much as I had left them. Chloroform having been administered by Mr. Douglas, I proceeded to attempt reduction nearly in the manner described by Dr. Bigelow in his papers (*vide The Lancet*, June 15th and 29th, 1878). Having turned the man on his back, I placed my foot on the anterior superior spine of the ilium, expecting to have to use considerable force, and, bending the thigh to a right angle with the trunk, I grasped the ankle and knee and lifted the limb straight up. *Instantly* the head of the femur returned to the acetabulum. As near as I can tell, the force exerted would raise about thirty pounds from the ground. A long splint was applied for about ten days, and then removed, and the man went about on crutches.

This case illustrates the extreme ease and simplicity of Bigelow's method, as recently enunciated, compared with the elaborate direction formerly given. Seeing such cases so seldom, one is apt to forget the more complex formula of "flexion, a little inward rotation, then abduction of the thigh, circumduction and rotation outwards." Even the concise directions, "Lift up, bend out, roll out," do not always come to the memory of the operator when wanted. The mechanism of the accident is of interest, and it agrees with the case of Pierre Guilleminot, quoted by Mr. Rivington from Dupuytren. My patient was pushing a heavily-laden tub up an incline; his right leg was extended and his left advanced; consequently the left thigh was flexed; it was adducted also. This can be demonstrated by placing the body in the position indicated, and attempting to push a heavy weight. The foot is turned on its outer edge to obtain a better grip of the ground, and the one thigh is carried somewhat across the other.

LISTON AND WATER DRESSING.

Dr. Erichsen, of London, gives the following account of Liston's water-dressing in the *London Lancet* for Jan. 11th, 1879:—Liston, undoubtedly thought and taught that water-dressing was the perfection of the treatment of wounds. And so it certainly was when compared with the other methods of treating incised wounds that were generally adopted by his contemporaries. It was the perfection of lightness compared with a poultice; the perfection of cleanliness contrasted with ointments, often irate, sometimes rancid. That Liston rode his hobby of water-dressing in the treatment of wounds rather hard is undeniable. But I doubt much whether, in this respect even, he has been beaten by more recent innovators in the same field.

Liston died in 1847, and it would be eminently unfair to contrast the views which he entertained

up to the time of his death with those subsequently promulgated, and yet more so with those which are the outcome of the great advance in physical science since his day. Liston's mind was eminently plastic. He was always ready to receive and act upon suggestions from others, and had he lived it is probable that his views with regard to the value of water-dressing might have been modified. His death occurred at the most critical period in the history of modern surgery—at that period, indeed, which, if I mistake not, the future historian of our art will date as the commencement of a new era in the treatment of wounds; for his death was almost contemporaneous with the introduction of anæsthetics into practice, and anæsthesia revolutionized the treatment of operation-wounds.

I believe that an erroneous impression prevails as to Liston's method of using "water-dressing" in the treatment of large incised wounds, such as are occasioned by the amputation of a limb or the removal of a breast; and as, with one conspicuous exception, that of Mr. Cadge of Norwich, there is probably no one now living who has seen so much of his practice as I have, I may be excused for describing his manner of using this dressing.

It was as follows:—After the operation was finished the cut surfaces were deluged with cold water, so as to wash away all coagula, &c. A large piece of wet lint, doubled, was then placed between the flaps, which, being laid down on it, were covered with another large piece of doubled lint soaked in cold water. The stump was then put upon a pillow, exposed to the air, and left quiet, though wetted from time to time, for from four to six hours. By this time all oozing had ceased, and the cut surfaces were "glazed." The lint was then removed from between and upon the flaps; and if any vessel started bleeding it was immediately secured, and the "glazed" and nearly dry surfaces were carefully brought together by a few points of suture, and supported with strips of isinglass plaster. A slip of wet lint was then placed along the edge of the wound; the stump laid at rest on pillows, but otherwise exposed, without any covering except that afforded by the sheet thrown over a cradle. In this simple way the most favorable results were often obtained—quite as good, I do not hesitate to say, as can be shown by any of the more complicated modern methods of treatment. And it is not a little amusing to see many of those who have obtained their surgical experience during the last decade look upon the primary union of wounds as a modern invention unknown to surgeons who practised and taught thirty years ago. Such error is but an additional proof of that lamentable ignorance of the history of the surgery of the past which is so prevalent in our profession.

On the "glazing" of the wound—the coagulation of the fibrin of the liquor sanguinis over the cut surfaces—Liston laid great stress, and at the

time that I was house-surgeon at University College Hospital no one thought of bringing together a wound until this had taken place. He used the "water-dressing" partly as a means to this end, and partly as the cleanest and lightest covering at that time available for the protection of the cut edges.

But the introduction of anæsthetics led to a change in this method of treating operation wounds. From a natural and humane desire to spare suffering to their patients, surgeons, instead of waiting for the "glazing" of the wound, put it up permanently on the operation-table whilst the patient was still insensible to pain. The result of this practice was often most disastrous; for in those days methodical drainage of wounds was unknown, and surgeons had to trust to the apertures between the sutures and to the strings of the ligatures acting as conduits for the escape of blood-oozing or of that sanguineous ichor which is always freely yielded by a recently cut surface, and the retention of which in wounds we now know to be productive of the worst results.

It was not until some years later, when Chassaignac invented and pressed most forcibly upon the attention of surgeons that most invaluable instrument, the "drainage-tube,"—that instrument which is the basis of most modern methods of treating wounds,—that a real advance in this department of surgery was established, and that it became possible to put up immediately a large operation wound without the more imminent peril from retained blood or ichor.

By Liston's method the drainage-tube was not necessary (even had it been invented in his day), for the wound was not brought together till its surface was "glazed" and free from blood and ichor. In this lay the great merit of his treatment by water-dressing; to this its success was due, and I venture to think that in this it might often be imitated with advantage at the present day.

Wounds cannot be "cured," but they will heal readily enough if not tormented by injudicious surgery. Drainage alone is all that is needed to place most wounds in the most favorable condition for healing. And methods of the most opposite character appear to owe their success to the fact of drainage being the one essential element that is common to all. The "antiseptic" method, in which every "germ" is rigorously excluded by clouds of spray and multiplied layers of gauze, and the "open-air" method, in which a wound is left open to all that the atmosphere may chance to deposit upon its surface, differing as they most absolutely do in the theory on which each is founded, appear, in many operations at least, to be about equally successful in practice. This success would seem to be due rather to the one condition which is common to both—perfect drainage—than to those in which they are so dissimilar. For whe-

ther drainage be effected by a tube, or by the free escape of fluids without the use of an instrument, matters nothing, provided always that it be complete.

THE TREATMENT OF SPINAL CURVATURE BY CONTINUOUS EXTENSION—A MODIFICATION OF THE PLASTER-OF-PARIS JACKET.

[The following paper was read before the New York County Medical Society, Jan. 27th, 1879, by John A. Wyeth, M.D., and reported in the *Hospital Gazette*.]

Extension, fixation and rest are the cardinal principles in the treatment of lesions of the vertebral column. Add to these good hygiene and judicious medication and we have the sum of all the indications. Instrumentation can be successful, only as it meets these demands, and when we speak of the *wheel crutch*, the *Taylor brace*, and the *Plaster-of-Paris Jacket*, we witness in each of these a decided advance of our own progressive science. Each of these has its merits and demerits. Each has its champions and advocates among some of our most earnest workers and practical surgeons. It would be *well* for us, it would be *better* for humanity, if in the liberal spirit of true progress, we could, regardless of individuality, lay aside our prejudices, meet in the broad field of scientific discussion, courteously compare our notes, and profit by that wisdom which is found in a multitude of counsel. The plaster jacket was a great stride in the right direction. Its simplicity attracted universal attention, and it spread like wild-fire before the blasts of its enthusiastic advocates. Some of us thought that we had found the *ne plus ultra* in the management of Pott's disease; that sufferers had now nothing more to do but be suspended by the arms and neck, enveloped in Plaster-of-Paris and be cured. But let us ask pointedly, has it fulfilled these expectations? Does it meet fully all the indications in Pott's disease? I believe it comes nearer it than any other method yet made known to the public, but it has failed at times; it has its faults and these I shall try to point out, and hope to suggest the remedy.

In order to obtain the first great requisite, *extension*, by this method, the patient is suspended by the neck and arms, lifted well up from the floor, the lower portion of the body is the counter-extending force, the diseased surfaces are separated, and while in this position, the trunk is locked in the plaster jacket. If this *grip* of the jacket could be uniformly maintained, it would meet more fully than it does the indications. But any one experienced in its use will recognize this objection; it loses its firm hold in from 7 to 10 days after its application, and hence loses its property of holding at rest and separated, the diseased surfaces.

This results from two causes, 1st, the atrophy and yielding of the abdominal and thoracic structures under this abnormal pressure; 2nd, the softening and relaxation of the plaster itself from the absorption of bodily moisture. It follows of necessity, that the support having yielded, the upper portion of the body telescopes down upon the lower, the diseased structures are grinding in contact, and *the benefit obtained by extension is lost by the collapse which follows*. Hence arises the necessity of removing the apparatus and reapplying it, in itself at times painful and annoying. So I have found it, notwithstanding, I have been able to finish the dressing in ten minutes of suspension. Again, pressure upon the protruding spine often excoriates or prevents the healing of a pre-existing sore, and although a *fenestra* is cut, it is objectionable, since the discharge from the ulcer gets beneath the dressing, causing an offensive odor and removal of the jacket. Or a fragment of plaster, or foreign body dropping between the dressing and its re-application.

The method to which I now ask your attention, obviates these various difficulties. Without suspending my patient, the arms being held out of the way by an assistant; outside of the tightly-fitting knit undershirt, I apply *two* jackets of the required thickness. The lower edge of the upper jacket is just above the diseased points and extends upward to the arms. The upper edge of the inferior jacket is just below the seat of disease, and extends down over the hips. As the plaster bandages are "setting," I place three zinc plates about 2 by 4 inches perforated by numerous holes from opposite surfaces so as to prevent them slipping, in each section of the jacket. To the center of the plate is securely riveted a flattened staple of iron. One of these is fastened over the spinal column above and below, one under each arm and one directly underneath these over the hips. These are held securely in position by several turns of the plaster bandages, passed over them alternately above and below the *staples* which are left exposed. As soon as the jackets are firmly "set" the *extension* bars can be applied. Each bar consists of a shoulder at each end, and a solid section cut with cogs and grooves which telescopes into a hollow section, with a key for lengthening or shortening, and a "spring-catch" to hold it fixed at any point. It is the same mechanism that is used in Prof. Sayre's knee-joint splint.

The shoulders are caught in the staples riveted to the imovable plates, and the requisite extension is secured by means of the key.

Mr. Harz, of Reynders & Co., has, with creditable ingenuity, devised for me a lighter *extension-bar*, consisting simply of a male scrow, which works into a movable female screw, which secures the same extension. The principle, the application and the mechanism of this method is so simple

that I deem any detailed explanation unnecessary. The amount of extension is under the perfect control of the surgeon, and can be graduated to suit the comfort of the patient and the necessities of the disease. As the jackets yield, as they will under all circumstances to a greater or lesser extent, the extension is increased to meet the exigency and the same jackets will last throughout the treatment. At night, or at any time while the patient is reclining, when there is not a demand for much support, the middle bar is removed, allowing the patient to rest comfortably on the back. It will be seen that by my method the upper portion of the body rests upon the tripod of bars which are anchored, one over the sacrum and one over each hip, and that the diseased spinal column is relieved from all pressure from above or laterally. If there exists a lateral curvature one of the lateral bars can be extended more than the other and the curvature corrected. If the curvature is antero-posterior with the concavity backward (lordosis) the posterior bar will demand extra extension, and if the convexity of the curve is backward, the two lateral bars will require extension at the expense of the posterior. Around the portion of the body between the two jackets, a dry unplastered roller is carried moderately tight in order to retain any dressing on the sore (if this exist) and to equalize the pressure. Dr. Wyeth gave the history of a case which was in every respect a critical test of the value of this method, since it was successfully tried under the worst possible conditions and after all other methods had been faithfully tried under conditions which should have insured a better chance of success.

SYME'S AMPUTATION AT THE ANKLE JOINT FOR CLUB FOOT IN THE ADULT.

By Stephen Smith, M.D., Bellevue Hospital.

The following clinic on the above subject is from the *Hospital Gazette*. You will remember this patient, whose left foot was amputated at the ankle joint in the early days of the session. She has now perfectly recovered and is supplied with excellent artificial feet on which she walks with ease and grace. The occasion is opportune for calling your attention to the class of cases which she represents, and deducing from her case some useful practical conclusions.

Her disability was congenital talipes-equinovarus of both feet, she has never been able to walk about with any freedom. When she first came under observation about one year ago, the foot was dwarfed to the size of the foot of a child 10 years of age; the tarsal bones were firmly united at their articulation, and the whole foot was very painful after every considerable effort to walk. It was re-

garded as not only useless, but an encumbrance, and accordingly I amputated it at the ankle-joint by Syme's method.

The left foot seemed in a more hopeful condition, being of fair size, without ankylosis, and capable of being brought around so as to give a partial pressure upon the plantar surface. To aid in overcoming the obstacles to rectifying the position of the foot, I excised the cuboid bone, which enabled me to bring the foot into good position with comparative ease. But the gain in position did not greatly improve her condition; she was never able to walk about without suffering severely afterwards from neuralgic pains through the foot. Every effort was made to improve the condition of the foot by apparatus and adapted shoes, but proved unavailing; the foot continued so painful that she at length begged to have it amputated like the other, which had now healed, and gave a firm and durable stump on which she could readily bear her weight. Accordingly the amputation was performed as you recollect, and she has made a good recovery, and now presents two firm well rounded stumps on which she will walk with nearly as great firmness as she would, had her feet been well formed. In this adult patient we have an illustration of a class of distortions of the foot which are amenable to no other treatment than amputation. The most persevering efforts may be made to bring the foot into position, but without avail. And even if these efforts are partially successful, it can not be doubted that the feet will remain very inefficient for purposes of progression. They present dwarfed, or atrophied extremities quite unfit for that function. The questions which you will have to consider and answer when such a case comes under your care are two-fold, 1, What are the advantages of amputation, and 2, will the advantages compensate for the risks? The first question you must answer fully and explicitly, for on a proper understanding of the explanation given will depend the answer to the second question. It may safely be asserted 1, that the limb will hereafter be free from troublesome neuralgic pains, and 2, that she can walk with an easy and natural step. I do not take into account the possibility of a neuralgic stump, nor of a painful and tender cicatrix; for the former never, in my experience occurs at this point, and the latter will not exist if proper care to secure perfect cicatrization is taken. This is effected by removing all incrustations from the small raw surfaces that so often are allowed to remain unhealed, and applying zinc ointment.

The ability of patients to walk easily and gracefully with a properly constructed artificial foot is undoubted. Indeed, the perfection of the functions of the foot is often marvellous; the patient may run, dance, leap, with as much freedom on the artificial, as on the natural foot. A nurse in one of the upper wards of this hospital wore one of

these for years and none of the staff of resident surgeons knew or even suspected the fact.

If the operation is determined upon, the questions for you to settle are, 1, at what point shall the operation be performed, and 2, what method shall be practised. There are two points at which amputation may be performed, viz. through the medio-tarsal articulation or Chopart's operation, and through the ankle-joint. Between these two points you must not hesitate to decide in favor of the ankle-joint. Medio-tarsal amputations are not less fatal than those performed at the ankle-joint, and they have far less serviceable stumps for the reason that there is an inevitable tendency in the stump to turn its face downward; by the elevation of the heel it soon becomes ulcerated and the patient is unable to walk upon it, nor does it admit of the adjustment of a serviceable appliance.

Having decided to amputate at the ankle-joint you must choose between two methods, viz., between that known as Syme's, and that known as Pirogoff's. The former consists in raising a heel flap and applying it to the extremity of the tibia, and the other in dividing the os calcis obliquely, and applying the cut surface to a cut surface of the tibia. Between these two methods I do not hesitate to advise, and even urge you to select Syme's method. My reasons for this preference are two-fold, viz. 1. It is the safer operation, and, 2, it gives the more serviceable stump. That it is the safer operation you must infer from the fact that the bone in the flap of Pirogoff is liable to caries and necrosis; when that occurs the process of repair is exceedingly tedious, and may even prove fatal. In the Syme stump, union is generally very prompt, sometimes being completed as early as the 15th day. Sloughing of the flap may occur, as after any amputation, but is only exceptional.

2. The Syme stump is the more serviceable. By this I mean that it is best adapted for a good artificial limb. It is claimed for the Pirogoff stump that being longer it is more readily adapted to an artificial foot, but the truth is that this additional length is injurious. And for this reason—the easy working of the applied foot depends largely upon the position of the ankle-joint; if it is low down there is little play of the foot, and the patient has the gait of one suffering from a broken arch of the foot, or splay foot. To give real effectiveness to the foot the ankle-joint must be elevated as high or higher than the natural foot. This position of the ankle Syme's stump provides, hence patients amputated by that method, have an elastic, easy gait, closely resembling the natural. I cannot better illustrate the value of the Syme stump than by quoting the conclusions of one who has had the largest experience of any surgeon in this country in adapting compensative apparatus to stumps formed in this region. Dr. Hudson says:—

"The apparatus as properly constituted and

adapted to the Syme stump is artistic, natural in its movements, and in every respect practical and pleasing to the wearer, and contrasts wisely with the artless, anomalous appliances of the "manufacturers of artificial limbs." Not infrequently intelligent subjects of leg amputations with very good stumps, when having an incidental opportunity to compare their occasions for an amputation and their condition with those of like occasion who had been favored by a Syme operation and its benefit, have expressed their *indignation at the surgery* they have suffered. In no instance which has come to my observation have inflammation and ulceration occurred to the base of the stump of a tibio-tarsal amputation after the tissues were united healthily and were subjected to the same service as those of the natural heel; nor are there any existing histological data for the anatomist, physiologist, or pathologist by which they can reasonably be led to argue such a consequence. The condition of the stump, its capacity for any degree of service, have proved equal to the condition and capacity of the heel of the other limb."

THE TREATMENT OF PSORIASIS.

The following is the treatment of this obstinate affection by Dr. Bradbury, of Cambridge, (*London Lancet*):—There are few physicians who have not met with cases of psoriasis which have been most rebellious to treatment. During the last few years several such cases have come under my notice, and I venture to place before the profession the methods of treatment I have found most useful in these obstinate forms of the disease. At one time I treated all cases of psoriasis with Fowler's solution, and an ointment containing in each ounce of lard six grains each of the bisulphuret and red oxide of mercury and two minims of creasote. The success attending this mode of treatment was most marked. Four or five cases have, however, of late been under my care in which this method of treatment has signally failed.

One of these cases was that of a young girl, fourteen years of age, who had never menstruated, and whose body was almost covered with the eruption, the patches being especially well developed over the elbows, knees, and abdomen. In this case all the ordinary remedies were tried, including red ointment, alkaline and bran baths, Plummer's pills, arsenic alone in ordinary doses and combined with iodide of potassium, liquor potassæ, tincture of iron, tar capsules, Donovan's solution, the biniodide of mercury, tar and carbolic acid ointments, &c. There was, however, little or no improvement, although the remedies were fairly tried for a sufficient length of time to test their efficacy. The girl was well nourished, otherwise I should have given her cod-liver oil. What benefitted the

patient most was a mixture containing eight minims of liquor arsenicalis and ten grains of potassium sulphate, in an ounce of water, given thrice daily; and subsequently a mixture containing sulphate of iron and sulphate of magnesia. The eruption did not completely disappear till the catamenia had been for a long time established.

Another case was that of a gardener, between thirty and forty years of age, whose arms, legs, abdomen, and forehead were covered with white scales. He had had one previous attack. He was rather thin, but in other respects in good health. In this case arsenic, in any shape and in any dose, was useless; so were all outward applications except the alkaline and bran baths. He was ultimately cured by taking drachm doses of citrate of potash twice daily, and five grains of Plummer's pill every other night, and leaving off all stimulants. There was no syphilitic history.

A third case was that of a publican, aged forty, a private patient. In this case the eruption speedily disappeared under the influence of arsenic and the red ointment and a non-stimulating diet. The patient could not be induced, however, to discontinue altogether alcoholic drinks, in consequence of his business. The result was a return of the eruption and the appearance of albumen in his urine. Arsenic alone now failed to remove the disease, and so did phosphorus, but a combination of arsenic, carbonate of ammonia, and acetate of potash, quickly removed every trace of the malady, although the patient took a considerable quantity of wine and spirits. The patient had never had gout.

A fourth case is still under observation—viz., that of a young girl, aged nine, whose head, face, legs, arms, and trunk have been affected. No internal or external treatment benefitted this girl, except the ointment of chrysophanic acid (thirty grains to an ounce of lard). In a few days this removed the eruption without any internal remedies. The disease has, however, a great tendency to return, but speedily disappears under the influence of the ointment.

USE OF CHLORAL IN LABOR.

Dr. Reany in the *Lancet and Clinic*, speaks as follows regarding the use of chloral in labor:—After an experience which has enabled me to thoroughly test its effects, I wish to add my testimony to that of many recent obstetric writers as to the value of chloral hydrate in certain cases of labor, especially during first stage. In cases where pains of cervical dilatation produce unbearable suffering, resulting in nervous irritability, often arresting the progress of labor, and rendering the situation one of anxiety both to patient and physician; the remedy administered in from 5 to 15 grain doses, from one

to two hours apart, acts often as by magic. The excessive suffering subsides, the dilatation proceeds and the second stage is entered upon and completed without difficulty.

In several instances I fancy that I have obtained the best results from the administration of 15 to 20 grains at once, which has rendered the second dose unnecessary. The middle ground which this agent occupies in its effect between an opiate and an anæsthetic under such circumstances renders it infinitely better than either. It is singular how an agent whose therapeutic power is not to relieve pain direct, nevertheless so completely relieves suffering.

During the past three years I have made special observations which convince me that no bad effects upon the child follow the administration of chloral, at least when its use is not continued for many hours consecutively. I cannot say as much either for opium or ether. A few cases which have come under my observation recently, two of them in consultation, lead me strongly to suspect, that when ether is administered to the mother in large quantities or for several hours prior to delivery, serious consequences may result to the child.

Observations of a similar character have been made by my friend Prof. Jenks, of Detroit, Michigan. The precise mode by which certain agents administered to the mother reach the child in utero, is still in doubt, but the fact will hardly be questioned, and must always be considered, when morphia or other preparations of opium are liberally administered to the parturient woman.

EXAMINATION QUESTIONS ROYAL COLLEGE OF SURGEONS, ENGLAND.—At the pass examination for the diploma of Membership there were 145 candidates, to whom were submitted, at the written examination on the 17th ult., the following questions on Surgical Anatomy and the Principles and Practice of Surgery, when they were required to answer at least four (including one of the first two) out of the six questions:—

1. Enumerate, in their relative position, the viscera and blood-vessels contained in the upper zone of the abdomen—i.e., between the diaphragm and a horizontal line drawn across the cartilages of the ninth ribs. Describe any surgical operations which may be performed in this region.

2. Mention, in their order, the structures divided in performing "Syme's amputation."

3. Contrast the symptoms and the condition of the limb which result from sudden plugging of its main artery with those which result from plugging of its main vein. State the treatment in each case.

4. Describe the consequences, immediate and remote, of a puncture of the brachial artery during venesection, and the appropriate treatment.

5. What consequences are likely to ensue from the impaction of a fragment of iron, say from an anvil, in the cornea? How would you treat such a case?

6. What are the signs and symptoms of a loose cartilage in the knee-joint? Explain the origin of these bodies, and the treatment you would adopt.

The following were the questions on the Principles and Practice of Medicine submitted on the following day to those candidates who had not passed any recognised examination in Medicine:

1. How are the lesions of the various cardiac orifices detected and diagnosed? Where, in the different cases, are abnormal sounds heard? and what are the pathological conditions that induce them?

2. Enumerate the various modes by which lead may be introduced into the system, and what symptoms it gives rise to. What is the prophylactic and medicinal treatment?

3. Enumerate the various metallic and vegetable substances contained in the Pharmacopœia that are employed as evacuants of the alimentary canal. Describe their *modus operandi*, the particular indications for their employment, and write a prescription in full of a diuretic mixture for an adult.—*The Lancet*.

OUR CONFESSONAL.—The *British Med. Journal* says: The long list of successes and of more or less meritorious and brilliant conduct of difficult cases to a satisfactory termination, which is weekly accumulated in our columns, might easily lead the superficial observer to the conclusion either that, as a rule and almost invariably, success is the reward of medical exertion, or that nothing is to be learnt by failures. Now and then, of course, we are enabled, by the wise courage and candour of contributors, to record failures in fact and blunders in act. The fact is, however, that reports of failure, the warning recital of blunders, and the candid confession of faults, would form an element of immense importance and invaluable instruction in medical chronicles. We have opened "a confessional," in which the main element which may attract to it confessors, if not penitents, is the inviolable anonymity which will be preserved in respect to it. In this way, we very earnestly invite the reports of mistakes, errors of omission and commission, and statements of special mortality, in medical, surgical, and obstetrical practice. We are assured that such records will be found of of singular value; and, as in this manner they can be put forward without undue sacrifice or the possibility of ungenerous abuse of confidence, we may hope that they will become more frequent than heretofore.

THE PLAGUE IN RUSSIA.—At a meeting of the Berlin Medical Society, (*British Med. Journal*), Professor Virchow, made some remarks on the

subject of the plague. After pointing out that the epidemic had not yet been investigated according to modern scientific methods, and that the results of the investigations which have been handed down to us from former times were most unsatisfactory and contradictory, he proceeded to show that the disease which raged in Astrachan was the oriental plague, and not the Indian plague which has been described by Professor Hirsch. The latter comprises two different classes of the infection; viz., the plague *pali*, which occurs epidemically in the western part of India; and the plague of the Himalaya, which breaks out also epidemically in some isolated spots on the mountains, but does not spread any further. The oriental plague comes originally from Syria, and spreads over Mesopotamia, Persia, and the borders of the Caspian Sea. During the last ten years, Russian doctors have frequently mistaken for the plague outbreaks of exanthematic typhoid fever. Anyhow, the plague is not more to be dreaded than cholera morbus. The best thing to do is to isolate the patients, placing them in a favourable medium. There is no doubt as to the plague being an infectious disease; but we do not know as yet the origin of the contagion. It is possible that, in studying the affection very carefully, the germs of the contagion might be found in the blood, as in cases of splenitis. As long as the causes of infection are unknown, it is puzzling to know what class of objects ought not to be imported, because they may carry the germs of infection. The best method of disinfection is doubtless dry heat, which proceeding has been largely put in practice in hospitals and barracks in Vienna.

TRACHEOTOMY BY GALVANO-CAUTERY.—M. M. Krishaber read a report before the Paris Academy, remarkable from different points of view. A patient drank contrary to his habit large quantities of cold water in a country where goitre was epidemic. A goitre developed rapidly and in two months affected respiration in a high degree. Sept. 22, M. Krishaber was called in all haste, one lobe of the tumor having suppurated and leaving a tracheal fistula by which pus fluctuated into the trachea and rendered suffocation imminent.

The surgeon performed tracheotomy with the thermo-cautery, without losing a drop of blood. In passing an œsophageal sound through the canula placed in the orifice he was able to dilate the part of the trachea on which compression was made and the patient entirely recovered.

M. Krishaber no longer makes linear incisions. He makes a series of punctures with the cautery *porté au rouge sombre*.

Last Wednesday, M. de St. Germain reported to the society of surgery five cases of tracheotomy by means of thermo-cautery in the hands of the same surgeon.

The success of M. Krishaber is an excellent argument for the employment of this instrument and it is probable that with the successive improvements it undergoes the opposition which it has encountered will disappear.—*France Medicale*, Oct. 12, 1878.

SPINA BIFIDA CURED BY IODINE INJECTION.—Dr. Geo. W. Thompson reports (*British Medical Journal*, November 30, 1878, *Medical Times*) the case of an infant having a spina bifida situated over the first and second lumbar vertebræ. It measured about twelve inches in circumference, with a pedicle about two inches by one inch. It was said to have increased greatly since birth, being then only the size of a common marble. The child was ten days old. The skin covering the tumor was as thin as membrane; some strands resembling nerve-cords could be seen by transmitted light. Pain was caused by pressure. The sphincter ani was paralyzed, allowing the feces constantly to trickle away; the feet were movable. On pressing the finger firmly into the root of the tumor on its upper surface, an opening in the spinal column, large enough to nearly admit the point of the finger, could be felt directly over the spot where the usual spinous processes should have been, one of which seemed wanting. Operation was performed by withdrawing two ounces of serum and injecting the following mixture, as recommended by Dr. Morton, of Glasgow: Iodine, gr. x; iodide of potassium, gr. xxx; dissolved in 3i of glycerine. This was repeated twice, at intervals of about a week, and with the result of a complete cure.

DIRECT ABSTRACTION OF BLOOD FROM THE LUNGS IN CROUPOUS PNEUMONIA.—Dr. N. Finn, in a preliminary report on the subject, states that in croupous pneumonia, with commencing œdema of the lung, he has obtained the best results by the direct withdrawal of blood from the lungs by means of Dieulafoy's apparatus. This is proven he claims, to be a harmless procedure, and is, in his opinion, decidedly preferable to the usual modes of bleeding.—*St. Petersburger Medicinische Wochenschrift*. No. 50, 1878.

A NEW STIMULANT.—The *British Medical Journal* gives a long account of a new stimulant, which has lately been described by the papers of Australia. It is called pitcherine by the natives, and is used by them as we use tobacco, both for smoking and chewing. Its effect is that of a pleasant exhilaration; when long continued, intense and continuous excitement follows. It is used, when on long foot-journeys, to invigorate and keep up the strength or excite them to courage in battle; large doses are said to infuriate all the passions. Some of the natives make a plaster of the plant and place it back of the ears, believing they are influenced by it.—*Am. Bi-Weekly*.

THE CANADA LANCET.

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TORONTO, APRIL 1, 1879.

TREATMENT OF CHRONIC ABSCESS.

In a recent number of *Le Practicien*, of Paris, Dr. Bæckel, of Strasbourg, contributes an interesting article on the treatment of chronic abscess. All surgeons agree in recognising the dangers which result from the opening of chronic abscesses to a free exposure of air. An infectious fever is the ordinary consequence in the first forty-eight hours. The suppuration becomes fetid, the walls do not granulate, and if the patient does not possess considerable powers of resistance, he succumbs to marasmus unless well marked pyæmia happens to terminate the scene earlier. In leaving them to spontaneous opening, in order that they may empty themselves slowly and gradually by a very small orifice, we often avoid the accidents of the outset, because the air does not penetrate into the cavity, but infection rarely fails, sooner or later, to break out in the course of the illness. The source of this accident has always been attributed to the air, but without giving an exact *rationale* of the way in which the air became pernicious. Since the investigations of Pasteur and Lister, we have learned that the microscopic germs floating in the air are the agents of the decomposition of pus, and of consecutive septicæmia. In carefully applying the antiseptic dressings of Lister we can open these purulent collections without fever, and without infection, because the air has been deprived of the septic germs in traversing the numerous layers of carbolized dressing.

Nevertheless, however perfect this method may be in theory, it is difficult to realize it completely in practice, when we have to do with those profuse suppurations which soak rapidly the thickest dressings. If we could obliterate gradu-

ally these purulent cavities without making a permanent opening and running all the risks following it, we should have realised a great advance. This may be done in a great number of cases by combining aspiratory punctures with carbolic lotions. These means are simple and within reach of all. Three conditions are necessary to success; first that the abscess may be completely emptied, and does not enclose clots to block up the trocar; secondly that the carbolic lotion impregnates all the surface of the sac, and thirdly that the abscess is not the result of diseased bone. Even in the last case this method, if it do not radically cure, prepares the way for opening the cyst, and transforming it into a simple fistula. In suppuration of the joints, punctures followed by carbolic washings succeed well, provided that the osseous and cartilaginous surfaces are not seriously affected. The operation is very simple. An aspirator is used both for the purpose of removing the pus, and injecting the fluid for washing out the cavity. The needle is introduced and the pus removed, and without withdrawing it, the instrument is reversed, and the carbolic lotion introduced and again removed. This operation may be repeated six or eight times or as often as necessary, after which the needle is withdrawn and the puncture covered with a piece of adhesive plaster, or a layer of cotton soaked in carbolic lotion, or both may be used. After a few days the cavity is generally filled again with pus and serum, and is again treated in the same way. This is to be repeated until a cure is effected, during which time complete rest of the parts should be maintained.

ONTARIO MEDICAL COUNCIL VS. BRITISH GRADUATES.

We notice in the daily press that certain members of the Executive Committee of the Ontario Medical Council have been at Ottawa, (at their own expense, we presume) to lay before the Government an alleged grievance of which they complain, viz., that British graduates in medicine have by Act of Imperial Parliament, the privilege of practising their profession in any of the colonies of Her Majesty's dominions, upon payment of the registration fees in force in such colonies; and, also, that Canadian graduates in medicine who

subsequently qualify in Great Britain are accorded like privileges, and are thus enabled to return to Ontario and become registered without passing an examination before the Ontario Medical Board.

This self-constituted deputation, we understand, desires to obtain, through the influence of the Dominion Government, such alteration in the British Medical Act as would exclude the holders of British qualifications from practising in Ontario without first passing an examination before the Board of Examiners appointed by the Ontario Medical Council, and paying therefor such fees as they may think proper to impose. The same gentlemen introduced a Bill during the session of the Ontario Legislature just brought to a close, which, if passed, would give the Ontario Medical Council power to demand from the holders of British qualifications a registration fee of *four hundred dollars*, the ordinary fee being \$10 only. We cannot but express our regret at the course which these gentlemen have seen fit to pursue. What we desire most of all, and that which will be for the best and highest interests of the profession on both sides of the Atlantic, is *reciprocity in medical registration* between Great Britain and her Colonies. The general Medical Council of Great Britain has been moving in this direction, and we are of the opinion that if the views of these gentlemen are carried out it will have an injurious effect upon medical opinion in England, and tend to delay, if not jeopardize altogether, the question of reciprocity.

We care nothing about the legal aspect of the question which has been raised, concerning the right of the British Legislature to pass an Act which appears to conflict with our legislation. This question, no doubt, will make a safe cover of retreat for the busybodies who have been doing so much on their own responsibility in the name of the Ontario Medical Council. And we desire here to enter our protest against any two or three individuals assuming to act, speak and *legislate* for the profession of Ontario, without giving the latter an opportunity of even expressing their approval or disapproval of such action. It is a dangerous precedent, and as a public journalist, it is a duty incumbent on us, and which we owe to the profession, not to allow such action to pass unchallenged. No such arbitrary measures as these gentlemen would desire to enact appears to us to

be necessary at the present juncture, in any view of the case. There has been so far only one solitary instance of a candidate with British qualifications having sought registration (and he was a Canadian), nor do we believe there will be any considerable number asking registration under similar circumstances. The inducements, as we all know, are not of the most inviting character. This Province is well supplied with doctors, nay overstocked, and there is a much wider field for surplus medical practitioners in England to-day, than in Canada. Notwithstanding the very superior test of fitness claimed by the Ontario Medical Council, more medical men are licensed every year in Canada, in proportion to the population, than in England, and fewer rejections take place at the examinations.

We do not at all participate in the fears expressed by these gentlemen that the influence or the powers of the Ontario Medical Council as an examining and licensing board for Canadian graduates in medicine, will suffer in the slightest degree by a continuance of the arrangements which have been in operation for many years past; and we should be very sorry to think so, for the Ontario Medical Council, with all its foibles and shortcomings, which, after all are but few, and confined chiefly to a few ambitious and designing individuals, has done good service to the cause of medical education in Ontario. Nor do we apprehend that the usefulness of our Canadian medical schools will be injuriously affected by the few British practitioners, or Canadians with similar qualifications, who may seek registration in Ontario. We hold the opinion that medical practitioners of known ability and thorough training should be admitted to registration in Ontario without the expense of an examination, or the payment of an extraordinary license fee. The regulations which these gentlemen would desire to enforce would exclude even a man with as high a professional standing as Dr. Andrew Clark, who was amongst us lately, if his qualification had been obtained since 1870. We are of the opinion that Canadian graduates in medicine who have taken the degree of M.D., in any recognized Canadian University, and who have subsequently spent one or two years in a London Hospital, and have obtained such qualifications as will enable them to register in Great Britain, have given sufficient evidence of thorough qualification, and

should be at once admitted to registration in Ontario without the expense of an examination on payment of the ordinary examination fees. Suppose two young men have gone through the same course of training in Canada, and are equally well qualified. At the end of their course of study, one of them goes before the Council Examining Board, and obtains his license, and settles down to practice in some town in Ontario; the other proceeds to London, spends one or two years in the large Hospitals there, passes the examination of one or more of the Royal Colleges at great expense, and then returns to Canada—we ask, which of these men is the better qualified, and whether or not some allowance should not, in all fairness, be made in favor of the man who thus so thoroughly qualifies himself for the practice of his profession? The grand object for which the Ontario Medical Council was brought into existence was to protect the public against incompetent practitioners, and to rid the community of quacks, and as neither the charge of incompetency nor quackery can be made with fairness against either British graduates, or Canadian graduates with additional British qualifications, they should be admitted to registration on payment of the usual fees. Even if a few British graduates should come and settle in Ontario, it would do no possible harm; there is nothing to be gained by exclusiveness in a scientific profession like ours. It may be urged that British graduates, who may be educated either as physicians or surgeons, should not have the privilege of practising both surgery and medicine, as they would have if registered under our Act. We admit that such would not be just, and an amendment to the Ontario Medical Act, which would limit them to the practice of those branches only in which they were qualified in England, would not be objectionable.

REPORT OF THE REGISTRAR-GENERAL OF ONTARIO.

We are in receipt of the report of the Registrar-General of Ontario for the year 1877, from which we take a few excerpts. The number of births, deaths and marriages registered in 1877 although not what it should be, yet shows a satisfactory increase over previous years, the increase over 1876

being 2935 or 4.2 per cent. The total number of births registered in Ontario for 1877 is 39,957, the total number of marriages 12,577, and the total number of deaths 20,053. The returns of births are as yet incomplete, and it is to be regretted that the public cannot be induced to pay more attention to this important duty. The ratio of registered births is only 24.6 per thousand, which is much below the average of English and European countries (35 per thousand). The report says: "The death rate of any county is a sure index of its health." If all the deaths were registered every year with a correct statement of the causes, it would be found of infinite value in determining the influence of epidemic diseases, change of seasons, sanitary conditions, etc. on the rate of mortality, so that when the rate of mortality is found to be higher in any locality than the normal rate of a healthy community, it will be the duty of those entrusted with the carrying out of sanitary regulations to supply the means for its remedy.

The returns from towns and cities generally, are much more complete than those from country places, though in a few instances the death rate of towns is evidently less than should be expected. Whether this is due in some cases to greater attention to sanitary measures or to the incompleteness of the returns, it is difficult to determine. In Toronto the death rate is in the ratio of 23 to 1000 of the population (67,386); Belleville 21 (population 11,192); Hamilton 20 (population 32,641.) In Ottawa on the other hand with a population of 24,431 the death rate is given as only 5.9 per thousand; in St. Catharines (population 13,143) the death rate is 15.6 per thousand, and in Brantford (10,631) the rate is 11.4. These figures show how very far from correct these returns must be.

The birth rate returns are equally far astray; for example in St. Catharines the births returned number 164, the deaths 206, or 42 more deaths than births, and we should expect to find a corresponding decrease in the population, but instead it has been increased by 273. The highest and lowest number of registrations of births in Ontario were in the months of January and December respectively, from which it would appear that a large number of the births which should have been returned in December were not registered until January. The total number of male births is 20,659 and the total number of females 19,298,

giving a slight preponderance to the males.' The number of twin births has increased this year from 349 to 411. Of triplets there were five cases, one in each of the counties of Lanark, Prescott, Russell and York, and two in Lincoln. In two cases the parents received the Queen's bounty of £3 sterling. Notwithstanding the hard times there appears to have been a large increase in the number of illegitimate births, a circumstance greatly to be deplored. The number of children born out of wedlock registered during 1877 was 529, as against 392 in 1876.

In regard to marriages 25,154 were solemnized during the year; of these 34.89 per cent. were Methodists, 20.96 Presbyterians, 18.30 Episcopalians, 12.27 Roman Catholics, 5.59 Baptists, etc., and 345 were returned by the officiating clergyman without mentioning the denomination. Marriage by license instead of by banns still seems to be the favorite mode, 88.34 per cent. having been by license. The favorite months in the year for coupling still continue to be December and October. Among males the majority were married between the ages of 20 and 30; 134 were minors and 41 were over 70. Among females, 48 per cent. were married between the ages of 20 and 25; 22 per cent. were under 20, and 3½ per cent. over 40. A few instances of marriages at an advanced age are given. The age of the oldest man married was 88, and the oldest woman 68; the former married a blushing maid of 48 years, and the latter an old gentleman of 71 years. Two youths were joined in the holy bonds of wedlock at the early age of 17, and 32 girls were married at fifteen.

In considering that portion of the Report that relates to the deaths, we were struck with the want of definiteness which is painfully apparent in regard to the cause of death. For example, Lung Disease is given as a cause, without a word as to the true nature of the disease, whether tubercular or inflammatory, acute or chronic. Dropsy is also given, without one word as to whether it was due to disease of the heart or kidney. Convulsions are also given without any reference to the cause, real or supposed. From the last mentioned cause alone 573 deaths are given, and it can hardly be possible that in so many cases the physicians have been unable to make out the cause. We trust that in future reports, this matter of registering more correctly the

cause of death will be more carefully attended to by physicians.

The total number of deaths registered in 1877 is 20,053. The highest on the list are, phthisis 2,157, old age 1661, infantile debility 1164, pneumonia 1050, diphtheria 964, scarlatina 717, heart disease 697, diarrhoea 666, convulsions 573, enteritis 497, &c. The months of March and June show the highest and the lowest number of deaths respectively. The curve, or death wave commences to rise in December, ascends rapidly in January, more slowly in February, and reaches the highest point in March. It then recedes until June, the lowest point. In July it again rises and also in August, nearly to the level of March. It then sinks through September, October and November, when it is only a little above the level in June. The two highest points in the death wave are in March and August, and the two lowest are in June and November. These fluctuations are in all probability due to vicissitudes of temperature, and the existence of sanitary or insanitary conditions.

Among the causes of death, phthisis still heads the list, carrying off nearly twice as many as by any other specific disease, not including old age, and is likely to maintain its position on the list, unless some malignant epidemic should outstrip it in the race for victims. More females die of this disease than males. The report shows an increased mortality among children under one year of age, and also from one to five, the total number under five being 7,541. While the number of deaths under five years in Ontario compares favorably with other countries, yet the appalling fact remains that nearly one-fourth of all the children born die before they reach the age of one year, one-third die before the end of their fifth year, and nearly one-half before they arrive at the age of 20 years. The report says, "This reflects but little credit upon the manner in which the resources of medical science are applied in the nineteenth century, and the method in which the sanitary regulations are enforced." We cannot allow the former part of this statement to pass unchallenged. It is impossible to expect under present circumstances, that medical science can do more than it is doing, while there is so much "masterly inactivity" in regard to sanitation, and the improper nursing and feeding of children. Medical men are, as a rule, the only members of the community that seem to take a lively

interest in sanitary reform. The Government of the country has as yet done very little, and we fear this appalling death rate will still continue for years to come, until the public is taught by legislative enactment and otherwise to regard the non-violation of the laws of health as a sacred duty. The deaths from preventable diseases form a very large proportion of the whole number, and cannot fail to impress the most casual observer of the great necessity that exists for legislative action on a matter of such vital interest to the welfare of the nation.

The average age reached by members of different occupations may be of some interest. The average age of farmers was about 62, that of their wives 52, clergyman 61, physicians 53, lawyers 50, making an average by the three professions of 55; masons, shoemakers, tailors and carpenters averaged 55 years. The report concludes with an appendix on the weather and health of Toronto, Kingston and Stratford. The death rate per 1,000 in Toronto was 23.6, Kingston 17.2, and Stratford 9.2. The latter appears very low, and it is presumed that the registration there has not been as perfect as it should be.

REPORT ON THE MENTAL CONDITION OF PASSANANTE.—The Italian Commissioners in lunacy appointed to examine into the mental condition of Passanante, report that the plea of insanity is invalid, there being no evidence of any mental disease in the would-be regicide. The report shows that the commissioners have given him a most careful and thorough examination, having gone over every phase of his life, and tested every side of his physical and psychical organism, such as the measurement of the cranium; his psychical relations, as perception, ideation, memory, judgment; his sentiments, as vanity, affective sentiments, religious sentiments, moral sentiments; his will, speech, handwriting, physiognomy, demeanour; general and special sensibility (examined by Webers compass), response to electricity; dynamometry; functions of vegetative life, as the action of the heart, respirations, temperature, condition of liver, spleen, alimentary canal, amount of sleep etc., etc. We have no doubt that this in some measure accounts for the respect which is paid by the bench and bar of Italy, to the opinion of the medico-psychologist.

THE TORONTO UNIVERSITY.—In another column we publish a letter from a graduate of Toronto University in reference to certain restrictions lately adopted by the Senate of this University in regard to the admission of candidates for honors in medicine. We agree in the main with the views expressed by our correspondent, but we have every confidence that in a short time the restrictions complained of will be removed. It must be perfectly clear already to the framers of these restrictive regulations that they are not only useless for the purpose intended, but also exceedingly vexatious, and calculated to excite opposition and unfriendly criticism. Such restrictions are unworthy of a place on the statutes of a National University.

In the recent appointment of the Medical Examining Board, the Senate is to be congratulated on its liberality, and its anxious desire to appoint the best and most experienced men available, without reference to any particular school, or schools, and this action cannot fail to be fully appreciated by all who desire to uphold the national character of the University. We look upon this as a hopeful sign for the future of the Toronto University.

CÆSARIAN SECTION.—A case is recorded in *Le Progres Medical*, January 1879, in which the operation of Cæsarian section was performed ten minutes after the death of the mother, and a living child extracted. The mother was a manufacturer of hats, and lived constantly exposed to mercurial fumes. She had reached the seventh month of gestation when she was attacked with intra-peritoneal hemorrhage, from which she died. After death the child was found upon auscultation to be living, although the pulsations were feeble. The abdomen was immediately opened, when large quantities of blood and serum escaped. Artificial respiration had to be resorted to, and was continued an hour and a half before the child began to breathe.

REGISTRAR-GENERAL OF GREAT BRITAIN.—Dr. Wm. Farr, whose name has been so long connected with the work of this department, is a candidate for the appointment of Registrar-General, which becomes vacant at the end of the present year, by the resignation of Major Graham. The *London Lancet* comes out strongly in support of

his claims to the appointment, and very properly says that in the field of vital statistics he stands pre-eminently alone. The system of vital statistics of which England may justly be proud, and the reports of the Registrar-General which have been accepted as models in all parts of the world, owe their existence to Dr. Farr. One of Dr. Farr's most valuable contributions on statistical subjects is his English Life Table, which is calculated upon the deaths in England and Wales in seventeen years. His appointment would be a most fitting and graceful reward upon a meritorious public servant, and the appointment would be also an essentially popular one.

MEDICAL EDUCATION IN THE UNITED STATES.—

A convention of the Medical Colleges of the United States is to take place on the 2nd of May, a day or two previous to the meeting of the American Medical Association at Atlanta, Ga. The object of the meeting is to adopt a uniform system and a more thorough course of instruction in all the medical colleges of the Union, and in keeping with the requirements of the age. Two reforms are very much needed at the present time, viz., a preliminary examination in the English branches, and some knowledge of classics, especially Latin; and a four years' course of study, including attendance upon three winter courses of lectures.

ROYAL COLLEGE OF PHYSICIANS, LONDON.—

The following Canadian graduates in medicine successfully passed the examination of the Royal College of Physicians, London, and were admitted as Licentiates on the 18th February. W. H. Burton, N. Gillies, P. Z. Herbert, J. R. Jones, E. G. Kittson and R. B. Lesslie.

A. D. Campbell recently obtained the double qualification of the Royal Colleges of Physicians and Surgeons, Edinburgh.

USE OF CARBOLIC ACID BY MIDWIVES.—The midwives in the Tyrol are only allowed to follow their vocation under certain restrictions. The following has been recently decreed respecting carbolic acid, viz.: "that all midwives, whether examining or treating the healthy or sick pregnant lying-in women, must thoroughly disinfect their hands, or any instruments they may use, such as catheters, enema-tubes, sponges, &c., with a solution of carbolic acid."

ROYAL COLLEGE OF PHYSICIANS & SURGEONS, KINGSTON.—The Lectures in connection with this School of Medicine closed on Friday, March 21st. Dr. Lavell, Professor of Obstetrics, delivered an able and eloquent valedictory to the students, which was well received. The past session has been characterized by a large attendance.

ONTARIO MEDICAL COUNCIL EXAMINATIONS.—

The regular annual examinations of the Ontario Medical Council will be held in the Convocation Hall Toronto University, and also in the City Hall, Kingston commencing on the 8th inst. The matriculation examination will take place in Toronto only on the 15th and 16th inst.

THE PLAGUE.—The Fellows of the Royal College of Physicians, London, have passed a resolution requesting the British Government to appoint a Royal Commission of eminent statesmen, medical men, and specialists to investigate the plague now prevailing to such an alarming extent in Russia.

INTRA-VEINUS INJECTION OF MILK.—Dr. Robert McDonnell of Dublin, lately performed this operation with success on a patient suffering from great exhaustion, consequent upon typhoid fever. The milk was drawn fresh from the cow, and ten ounces injected into the veins at the bend of the elbow. The patient was very much benefited.

JOURNAL OF PHYSIOLOGY.—The Classified List of Titles of Books and Papers on subjects of Physiological interest published during the year 1878, has been issued to subscribers. Any subscriber not having received his copy is requested to communicate with Messrs. Macmillan, New York. A few extra copies are on sale. Price \$1.25.

Dr. McDonald has been appointed Consulting Physician to the Hamilton City Hospital, and Drs. Mullin and O'Neil, Attending Physicians.

TORONTO UNIVERSITY Examiner.—Dr. Canniff has been appointed Examiner in Anatomy and Surgery, in lieu of Dr. Malloch, resigned.

PERSONAL.—Dr. C. H. Lavell, of Kingston, has removed to St. Paul, Minn., where he intends to practise his profession.

Toronto Hospital Reports.

There are at present upwards of 220 patients in the Toronto General Hospital. The Andrew Mercer Eye and Ear Infirmary, which constitutes a wing of the Hospital, is now open for the reception of patients. Patients are admitted on payment of 40 cts. per day, or a guarantee from the Mayor or Reeve of the Municipality that the amount will be paid. A number of private wards are also at the disposal of those who desire them, at prices varying from \$5 to \$8 per week.

EPILEPSY.

J. V., æt. 20; of healthy parentage; strong and robust looking; had never received any injury, nor was the subject of any disease, hereditary or acquired; somewhat addicted to masturbation; was seized in August last with epileptic convulsions. At first they were not very frequent, but became more so in the course of a few weeks. The seizures were unilateral in character—left side, and were in some instances severe and prolonged; in others only of short duration. He was treated by several physicians, but without any benefit. The seizures became more frequent, and at the time of his admission to the Toronto General Hospital, they occurred every fifteen or twenty minutes. There was at this time partial paralysis of the left arm and leg. He dragged the leg more or less in walking, and required the use of a cane. He was ordered a warm bath, and was put upon bromide of potassium and liquor arsenicalis. After a few days the fits began to diminish in frequency and force, and in a few weeks, disappeared altogether. He remained in the Hospital about ten weeks, and was discharged apparently cured. He went home, and began to go about as usual, but from exposure to cold, the fits returned as frequently as before, and he was obliged to return to the Hospital. His condition on re-admission, was more unpromising than on his first admission. The convulsions were frequent and severe; the paralysis of the leg and arm was more marked, and the sensibilities more blunted; memory somewhat impaired. He had also lost flesh, and looked anæmic. He was again put upon the same treatment as before, and is rapidly improving. The fits have ceased, and he is able to move about with the slight assistance of a cane. It is the in-

tention to keep him under treatment and observation for a longer period, before he is allowed to leave the Hospital again.

FOREIGN BODY IN THE AIR-PASSAGES.

The following is a brief report of a case in private practice, under the care of Dr. Fulton:—

M. E., of the Township of Enniskillen, æt. two years, robust, healthy child, was playing, on the 24th of February, with a small glass bead, which she accidentally "swallowed." She was immediately seized with a choking spasm, which lasted some time, and returned in paroxysms every few minutes, with great difficulty of breathing. About 5 or six hours after the accident, she was seen by a medical man, and the usual means were adopted to remove the offending body, but without avail. As the symptoms at this time were not very urgent, the medical man advised the parents to leave her alone, in the hope that she might cough it up. For 5 or 6 days there was no great amount of irritation, and only occasional paroxysms of coughing; but the child could not be induced to swallow anything except a little milk or water, especially the latter. The parents became uneasy, and consulted a medical man in Oshawa, who immediately recommended them to bring the child to Toronto without delay, and have the bead removed. The parents did so, and, accordingly, on the 7th of March—11 days after the accident—Dr. Fulton performed tracheotomy. On introducing the hook in the trachea, before making the opening, the bead could be felt impinging upon its point every time the child coughed. On opening the trachea, it was readily seized and removed. The bead was about $\frac{1}{2}$ an inch long, $\frac{1}{4}$ of an inch thick, oval in shape, with a hole running through its long diameter. There was very slight hemorrhage. The wound was at once closed by sutures, but on account of the dyspnoea which followed, the stitches had to be removed, and, to add to this difficulty, there was a good deal of congestion of the lungs. Stimulating cataplasms were applied to the chest, and an expectorant administered. The temperature of the room was ordered to be kept at about 70° F. 8th. Found the patient quite easy; a good deal of air escapes through the wound in the trachea, especially when the child coughs; also some frothy mucus. 9th. Wound suppurating; some difficulty in keeping

the opening in the trachea free from accumulations of mucus and pus. 10th. Child very feverish in the afternoon; ordered quinine and salicylic acid, and some Dover's Powder, to allay the cough, which was very irritable. 11th. Fever came on again in the evening, but the quinine and acid kept it down; the patient being weak, was ordered egg and milk. 12th. Much better; fever gone; taking more nourishment. 13th. Patient doing well; wound granulating nicely, and was brought together with adhesive straps, and dressed with carbolated olive oil. The patient continued to improve rapidly, and was allowed to go home on the 19th of March, looking healthy and well; wound granulating nicely, and the opening in the trachea nearly closed.

BRANT MEDICAL ASSOCIATION.—The regular quarterly meeting of the above Society took place at the Kerby House, Brantford, on Tuesday March 5th. Members present were: Drs. Burt (President), Marquis (Vice do.), Harris (Sec-Treas.), Drs. Dee, Griffin, Healey, etc. Owing to the inclement weather, and consequent bad state of the roads, the attendance was not as large as usual; however, this did not render the proceedings any the less interesting. A paper was read by Dr. Dee on "The Prevention of Diseases," which elicited a lengthy discussion. The Dr. also gave some notes of a case of dislocation of the head of the femur, of difficult reduction; and Dr. Burt those of a case of shoulder joint dislocation. A specimen of vegetable fungus (*penicilium glaucum*) was shown by Dr. Harris. Drs. Griffin and Clarke were elected to prepare papers for the next meeting, which will be held at Paris, on Tuesday, June 3rd.

Books and Pamphlets.

AN ATLAS OF HUMAN ANATOMY, ILLUSTRATING MOST OF THE ORDINARY DISSECTIONS, AND MANY NOT USUALLY PRACTISED BY THE STUDENT, WITH AN EXPLANATORY TEXT. By R. J. Godlee, M.S., F.R.C.S., University College, London. Philadelphia: Lindsay & Blakiston: Toronto: Hart & Rawlinson.

The design of the author in issuing this series of plates is to supply a full illustration of the anatomy of the human body, and also dis-

sections not usually seen in the dissecting-room, in a form sufficiently portable to be easy of reference. The plates, which are beautifully executed, are accompanied by an explanatory text, which contains a full description of the dissections. Dr. Godlee is not only an able anatomist and successful teacher; but also a clever artist, as these plates abundantly prove. The work will consist of 12 or 13 parts, and will be issued bi-monthly, each part containing four large plates, two figures in each. When complete it will form a large folio volume of plates, and an octavo volume of from 300 to 400 pages of explanatory text. Price of each part \$2.50.

TEXT-BOOK OF PHYSIOLOGY by J. Fulton. M.D., M.R.C.S., Eng.; L.R.C.P., London; Prof. of Physiology and Sanitary Science, Trinity Medical School, Toronto; Surgeon to Toronto General Hospital, and Physician to the Home for Incurables. Second edition, revised and enlarged with numerous illustrations. Price \$4.25 net. Philadelphia: Lindsay and Blakiston. Toronto: Willing & Williamson.

The former edition of this work having been exhausted, within a comparatively short space of time, and as there was a large and increasing demand for the book, it was deemed advisable to prepare at once a second edition. In doing so the author has been at great pains to bring out prominently all the recent advances in physiology, which have been sanctioned by the highest authorities. This has necessitated a large addition to the size of the former work, bringing it up to 411 pages, but the original plan of arrangement has been rigidly adhered to. Many of the chapters have been entirely re-written, and numerous illustrations introduced wherever they appeared necessary to the elucidation of the text. The subject of histology has also received great care and attention, so that the work forms an excellent text-book for students on both the subject of physiology and histology. The former edition of this work is well known to the profession in Canada, and nothing further is necessary to be said in regard to it, than that the second edition is not lacking in those qualities which rendered the former so deservedly popular. An American edition will also be issued simultaneously by Messrs. Lindsay and Blakiston, Philadelphia.

PHYSIOLOGICAL THERAPEUTICS; A NEW THEORY, by Thos. Poole, M.D., Lindsay, Ont., and dedicated to Dr. Workman, of Toronto.

The author in the work before us combats the generally received theory regarding vaso-motor nerve action, and presents a new theory based on the inter-relations between nerve force and muscular tissue throughout the body. His theory regarding the regulation of the vascular supply to different parts, is that the nerves distributed to the coats of the vessels are the agents concerned in producing dilatation, and the muscular tissue of the middle coats *per se* produces contraction by virtue of its own inherent power. He denies that there are two sets of nerves, one for the production of dilatation and the other for the production of contraction, as is alleged, according to the vaso-motor theory. In regard to the action of the heart he takes similar ground, and denies the existence of excito-motor and inhibitory nerve influence. In accordance with his theory the author proceeds to interpret the action of medicines and their influence in disease. He treats of the action of aconite, veratrum viride, opium, belladonna, digitalis, conium, hydrocyanic acid, bromide of potassium, calabar bean, mercury, alcohol, etc., etc., and shows how the individual action of each on the system can be readily explained on his theory. He takes aconite as a typical drug of the sedative class. It paralyzes nerve force, both sensitive and motor, but does not affect the brain. Arterial contraction is a prominent feature in aconite poisoning; the surface is pale, and cold, lips blue, pulse feeble, all bespeaking constriction of the calibre of the vessels. He alludes to the effect of opium in allaying after-pains and yet promoting the contraction of the uterus, in proof of his theory.

The author seems to have expected adverse criticism, and asks for his theory no favor beyond that to which on a fair and candid consideration it may be found to be justly entitled. While few will be found to agree with the writer in his premises, all must admire the firmness with which he upholds his views, and his courage in opposing accepted theories. The work is written in a very interesting style, and aside from the theory advanced, reflects no little credit upon the author.

The Diseases of Live Stock and their most efficient remedies by L. V. Teller, M.D. Philadelphia: D. G. Brinton. Toronto: Willing & Williamson.

The author of this work is not a veterinary surgeon proper, but a medical practitioner, who has

given great attention to veterinary medicine and surgery. The work is free from technicalities, and will therefore be equally acceptable to the physician, farmer, and stock-owner. The treatment of disease is most fully discussed, and the entire work is of the most practical character.

CLINICAL LECTURES on Diseases peculiar to Women, by Lombe Atthill, M.D., Dublin. Fifth Edition, revised and enlarged, with illustrations. Philadelphia: Lindsay & Blakiston. Toronto: Hart & Rawlinson.

This is a most excellent resumé of the Diseases of Women. It is thoroughly practical, and contains in small compass a large amount of valuable information available to every practitioner. We have no hesitation in recommending it as a useful guide.

NATURE AND PATHOLOGICAL HISTOLOGY OF PSORIASIS, by A. R. Robinson, M.B., L.R.C.P. & S. Edin. New York: D. Appleton & Co.

MEDICAL MISSIONS AT HOME AND ABROAD, by J. G. Kerr, M.D., 23 years a medical missionary in Canton, China. Sanfrancisco: A. L. Bancroft & Co.

FIFTY YEARS AGO; An Address to the graduating class, Medical College of the Pacific for 1878, by H. Gibbons, Sr., M.D. Sanfrancisco: A. L. Bancroft & Co.

A CASE OF CLEFT PALATE WITH ACQUIRED DEAF-MUTISM, STAPHYLOPHRY, RECOVERY, by Adolf Alt, M.D., Toronto. New York: Wm. Wood & Co.

CONTRIBUTIONS TO THE PATHOLOGICAL ANATOMY OF THE EYE by the same author.

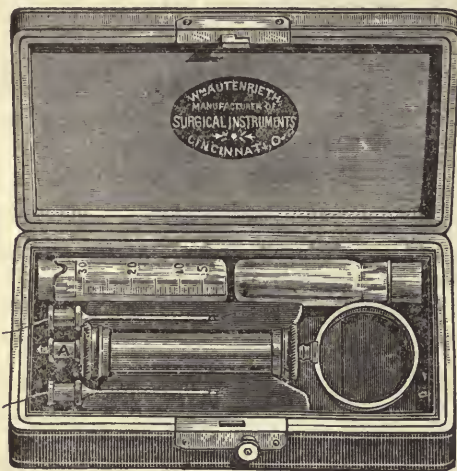
SUSPENDED PUBLICATION.—The *Ohio Medical and Surgical Journal* has suspended. It was published to supply "a want long felt," but that want having been succeeded by another and more imperative one—paying subscribers—the journal ceases to exist. The editor requests the friends of the journal not to aggravate his grief by letters of condolence, or expressions of sympathy, but kindly leave him to suffer in silence.

The death of Jacob Bigelow, M.D., LL.D., the father of H. J. Bigelow, M.D., surgeon, of Boston is announced in our American exchanges, at the advanced age of 91 years.

Dr. W. N. Keefer, formerly of Galt, Ont., is at present with his regiment, (20th) Punjaub Infantry, in the Afghanistan war.

New Instruments.

IMPROVED HYPODERMIC SYRINGE.



In most hypodermic syringes the piston, unless in daily use, becomes dry and shrinks, so as to lose its suction power, and requires several minutes manipulation before it can be made to work. In order to avoid this defect, and render the instrument ready for use at any moment, Dr. Whittaker, of Cincinnati, had a cap (A) made, which can be screwed on the end of the syringe as soon as the needle is removed; and which prevents evaporation of the few drops of fluid between the piston and the orifice of the syringe. This appliance is made by Mr. Autenrieth, of Cincinnati, and is affixed to all his syringes. The piston should not be forced down too close to the end of the barrel, otherwise all the fluid may be entirely pressed out. Readiness for immediate use, ease and accuracy of operation, are essential in the hypodermic syringe, and these are secured in this instrument, which is always ready for use.

BROMINE IN LARYNGEAL CROUP.—Dr. W. Redenbacher writes in the *Ärztliches Intelligens-Blatt*, of January 7th, (*British Med. Journal*) that he has obtained strikingly good effects in two cases of laryngeal croup from the internal administration of bromine (in the form of bromide of potassium). For some time bromine inhalations have been used in the following manner: From 0.2 to 0.3 gramme of bromine, with a similar or greater quantity of bromide of potassium, has been dissolved in 120 grammes of water, and, a sponge or handkerchief dipped in it being tied before the nose and mouth,

the bromine-vapour has been inhaled for five or ten minutes at intervals varying from half an hour to an hour. From this method, however, Dr. Redenbacher has not been able to obtain any good result. Two little girls, aged respectively 5 and 7, having come under his care with severe croup of the larynx and air-tubes, he ordered a tablespoonful of the following mixture to be taken every hour: *R* Decocti altheæ 120 grm.; potassii bromidi 4 grm.; bromi 0.3 grm.; syrapi simplicis 30 grm. On again visiting the patients, whom he did not expect to find alive, he was most agreeably surprised. The harsh respiratory murmur, the difficult breathing, the dry characteristic cough, the loss of tone in the voice, had all disappeared; the breathing was free, the cough loose, and the hoarseness diminished. Several portions of croupal membrane had been coughed up. The improvement continued on the next day, and perfect recovery followed in a few days. No toxic symptoms of any kind were produced. For children under one year the quantity of bromine in the mixture should be reduced to 0.1 gramme; and for those from one to four years old, to 0.2 gramme.

IRON WHICH WILL NOT RUST.—Prof. Barff has discovered that if iron be subjected to the action of steam having a temperature of 1500° F., it is covered by an incorrodible coating of the magnetic oxide, giving the finished article a dull-black appearance, susceptible of a slight polish. Salt or fresh water, vegetable acids, and all other ordinary oxidizing agents have no effect on the iron prepared by Barff's process. It should be called "Barff's iron," after the inventor.—*Med. Record*.

Codeia in one grain doses so completely stopped the vomiting and pain in a case of cancer of the pylorus, under Dr. Austin Flint's care, that the patient thought the tumor was decreasing in size.—*Mich. Med. News*.

The University of St. Andrews has recently conferred the honorary degree of LL. D. on Dr. J. Crichton Browne.

CORONER.—R. C. Young, M.D., of Ridgetown, to be an Associate Coroner for the County of Kent.

Births, Marriages & Deaths.

On the 11th ult, Byron Field, Esq., M. D., to Emma, daughter of the late Jordon Post, Esq., all of Pickering.

On the 29th of January, 1879, at Tuscarora, Ontario, G. E. Bomberry, M.D., aged 30 years.

At Toledo, Ohio, on the 9th ult., Dr. Thomas Waddell, son of William Waddell, of Seneca, Ont., aged 35 years.

On the 28th of June, 1878, Dr. Gaucher, of Milton, Que., aged 38 years.

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Original Communications.

DIAGNOSIS OF CROUP.

BY A. HAMILTON, M.A., M.B., PORT HOPE, ONT.

The summons, oftenest at night, to see a child, previously healthy, who has an acute attack of what the mother calls, or dreads, as "croup," is of sufficiently frequent occurrence and significant import to be worthy our attention. Observe, at the outset, that the case supposes a child, in fair health, with an acute attack, in which the symptoms point to a throat lesion. This will exclude a number of diseases which, with others, are purposely passed by with brief mention.

Croup may be mistaken for (1) *tonsillitis*, but inspection excludes that. (2.) A *foreign body* in the larynx or trachea, but the absence of the peculiar cough, of fever, the paroxysms not completely intermitting and the history of the case sufficiently exclude this. (3.) In ordinary *bronchitis*, symptoms do not point to the throat, but in that form called capillary we have unremitting dyspnoea and fine râles in the lungs. In any lesion likely to be called croup, the dyspnoea at least remits, and râles, if present, are coarse, and only there because of a previously existing bronchitis. (4.) *Whooping cough* occurs in epidemics, and so, if no epidemic be prevalent, may fairly be left out. (5.) *Retro-pharyngeal abscess* is excluded by the child's being supposed in previous good health, the most common cause of such abscess being caries of vertebra, which implies a child in bad health. Furthermore, with it we would have difficulty of swallowing not present in croup, tumefaction and stiffness of the neck, while its access is seldom so sudden as that of croup. (6.) *Œdema of the glottis* is a disease of adults nearly always, and when present in a

child is a sequel to a previously existing disorder, while the premises suppose a healthy child. (7.) *Hysteria* is excluded by our patient being a child, while hysteria generally occurs in adult women.

The way being now cleared of these seven already mentioned (they being left out of consideration for the future), the practitioner, summoned to our supposed case, may fairly ask himself what disease of several he is likely to meet. It will be almost certain to be one of three: 1. LARYNGISMUS STRIDULUS; 2. LARYNGITIS CATARRHALIS ACUTA; 3. LARYNGITIS CROUPOSA, called respectively spasmodic, false, and true or pseudo-membranous croup. These three diseases have one symptom common to them all, viz., dyspnoea, or attacks of dyspnoea, bordering on suffocation and depending on obstruction at or in the larynx. You may fairly ask me at the outset to define these diseases and give their pathology, as at the present stage of medical science their names are not so frequently at the ends of our tongues, nor their pathology as well settled as that of many other diseases.

LARYNGISMUS then consists in spasm of the larynx, due to irritation, the means of communication between the source of irritation and the larynx being the par vagum. The term laryngospasm is, perhaps, best reserved as a name for spasm of the larynx, considered as a symptom, while the name laryngismus is reserved when considered as a disease. It is doubtful if it be a disease at all, any more than dropsy is a disease, although the Royal College considers it such, and in so far, we are bound to accept it as such. I do not discuss its pathology, whether due to enlarged thymus gland or not, but content myself by stating it again and more fully: "It seems to be an independent affection of the par vagum, or of its recurrent branch, due either to pressure along some part of the course of one of these nerves or to centric irritation at the root of the vagus; or else we may be compelled to regard its exalted sensibility as a reflex phenomenon arising from excitement of some other nervous trunk. In most cases," continues Niemeyer, "its pathogeny is obscure."

In the second place, ACUTE LARYNGEAL CATARRH consists of inflammation of the mucous membrane of the larynx, so that the normal cylindrical epithelium, which forms the uppermost layer of the larynx, falls off largely. The mucous

Read before the Newcastle and Trent Medical Association at Peterboro', Ont., April 2, 1879, and published by request of the Association.

membrane is loose, succulent, moist and reddened; the submucous tissue is sometimes swollen, sometimes not, while small superficial ulcerations are often found in cases quite recent. It is usually in the higher grades of this inflammatory action that we are summoned. The milder forms are not seen by us. They are commonly given over to quack treatment, instead of being left, as they should be, to nature unthwarted by senseless remedies.

In the third place, CROUPOUS LARYNGITIS consists of inflammatory action affecting the mucous and submucous tissues, the areolar, glandular and other structures within its range or adjacent, accompanied by an exudation, consisting of cells and interlocking and rapidly coagulating fibrin. If you object that this definition includes diphtheria, it cannot be denied. If a difference be admitted, it is that the inflammation called diphtheritic is of a higher grade than the croupous. Clinically there is some difference as to location, and therefore as to treatment, but pathologically separate them if you can.

Before proceeding to the bedside, let us stop to answer the following query: Do you admit no higher grade of inflammation than the catarrhal, and yet which is not croupous? In other words, may not the child you are going to see have acute laryngitis? In other mucous membranes, as the intestinal in dysentery, of the conjunctiva, of that of the tympanic cavity in suppurative otitis, of the urethra, we have such; but in the larynx it is of *extremely* rare occurrence as a disease *per se* and of idiopathic origin. If we leave out obviously exciting causes, it is a fair question whether we ever see acute laryngitis. The scald from hot steam and the occurrence of laryngitis from extension from adjacent regions, as from inflammation of the œsophagus, due to swallowing boiling or corrosive liquids, and as following some diseases, is not uncommon, notably variola, diphtheria, and scarlatina.

With these remarks, in regard to pathology, let us approach the bedside to carefully diagnose before we begin to treat. If we have ventured there without having laid the sound basis of accepted and regular pathology, we are rank empirics and likely to remain such.

Of these three diseases, laryngismus, catarrhal laryngitis and pseudo-membranous croup, it is to be observed that the latter two consist of inflam-

mation, the first in spasm. In laryngismus we have no cough, no aphonia, no fever; the temperature is within the normal range or below it. Our reliable and well-tried thermometer is the touchstone, and settles the question as to the presence or absence of the first. The skin is not hot, but rather cool, while the child presents a pallor the opposite of flush, and this too when *a priori* we would expect the system to manifest irritation. Spasm of the glottis has so far interfered with aëration of the blood as to have produced this even abnormally cool condition.

Might not the skin, you ask, during the last days of a true croup, about or likely to be fatal, be just as cool, and how then are we to distinguish? In true croup we have a history with no intermission, barely a remission, of alarming symptoms, and especially a history of *fever*. There has been and is yet considerable *cough*. These are almost absent in laryngismus. If the latter has lasted several days already, it is because the exciting irritant is still present. In case contraction of the thumbs or feet, twitchings, squint, or general convulsions are, or have been present, they belong to the spastic affection, to the neuroses, and not to the inflammatory.

One of the journals, on which I cannot now lay hand, some time ago, recorded a striking case of laryngismus, well illustrating a point or two here brought out. A young child, and the great majority of cases of laryngismus are under a year, had been a sufferer for several days. The case was exceedingly well marked—as well marked as the treatment, often changed, was ineffectual. An enema seeming necessary, and that, judging by the record of the case, given more by routine than by rational indication, a body half-a-finger in length was brought away. On examination it proved to be fecal accumulation around half a head of rye or some other grain. The child was instantly better, as if by magic. I lost two of the first three cases I saw, by a too exclusive reliance on the empirical use of bromide of potassium. In America the source of irritation is in the alimentary canal nineteen times out of twenty, somewhere between mouth and anus, in the gums, stomach, duodenum, colon, or rectum. Laryngo-spasm is a frequent symptom of rickets. The worst and most persistent case I ever saw was cured by recognizing this fact and pushing the administration of iron

and cod liver oil, with valerian as an anti-spasmodic as long as needed. But rickets, common enough in the old world, is rare among the well-fed, shall I say over-fed, children of the new. Next, after the alimentary canal and such constitutional affection as rickets, head lesions may be suspected near the origin of the pneumogastric nerve.

Having, on the other hand, excluded laryngismus, one element in the problem is eliminated. It remains to distinguish the inflammatory affections. Is it false or true croup? Is it catarrhal or pseudo-membranous laryngitis? Here we have the semblance of spasm too. This, however, is only true in the sense that every cough is spasmodic action. It has been said that there is a constant spasmodic condition of the glottis with exacerbations at intervals. This is all wrong. There is the very opposite of spasm, namely, paralysis, producing the dyspnoea with coughing exacerbations. Animals whose pneumogastric nerves have been cut, and in whom by consequence there has been produced traumatic paralysis of the glottis, die with the exact dyspnoea of croup. This difference between the lumen of the glottis in the adult and child is to be borne in mind. In the child the glottis is a uniformly narrow slit bordered on each side by the true and false vocal cords. In the adult the arytenoid cartilages stretch forward turning their extremities inward in ram's-horn fashion, to the centre of which the posterior ends of the true vocal cords are attached with a triangular space between. Besides, the false vocal cords are withdrawn from the median line, giving a triangular cavity for respiration and the play of the cords. In the child, in any laryngitis, we have then an element of paralysis, for a very moderate inflammation of mucous membrane and subjacent tissue will interfere with the free action of the crico-arytenoid muscles which withdraw the cords and so open the glottis. When there is membranous obstruction of larynx we have greater obstruction from both the exudation itself and the greater attendant swelling, and hence both inspiration and expiration are impeded. When from simple paralysis only, such as is present even in catarrhal laryngitis, inspiration is more impeded than expiration. This we have drawn from pathologico-anatomical considerations. In the milder inflammatory affection, then, having a small amount of laryngeal secretion and the child more quiet, we are apt to have

prolonged sleep with accumulation and drying of the secretion in the larynx. This will occur most at night when the child has slept for some time. Hence the family alarm in the night, and our being summoned most commonly at night in false croup cases. Hence, too, with the dislodgement of the dried mass, relief has come before the doctor. The child has raised the mass to the entrance of the œsophagus and swallowed it. Children seldom expectorate. In cases of true croup there is less likely to have been such a remission as to have allowed much dry accumulation. The disease has been more continuous; while, in false croup, when the secretion is cleared away, the child seems almost well. When a child is reported to have had six, eight, or a dozen attacks, we are about safe in considering them false. These repeated attacks have left a chronic laryngeal catarrh, with predisposition to acute exacerbations, in one of which we are summoned. In a child then who has had several such attacks, they are probably of the catarrhal variety, and for the reason assigned. Hence the reputed efficacy of emetics, which by the acts of swallowing and vomiting in that near neighbor of the larynx, the œsophagus, and by the frequent and forcible opening and closing of the epiglottis, in the acts of emesis, have dislodged the dry and adherent secretion. Hence, too, our practical direction to have the child awakened every two hours, for two succeeding nights, and let it cough and drink. It is better to do this than to have more violent attacks of extreme dyspnoea, threatened asphyxia, and a doctor called out of bed.

When the child is old enough the laryngoscope should be used. This is advisable in distinguishing between the inflammatory affections. It is unnecessary in distinguishing between the simply and purely spastic and the inflammatory; in other words, in excluding the latter. Using the laryngoscope is seldom practicable, and so we proceed without it. If we have succeeded in its use we have found either (1) a catarrhal condition of the mucous membrane of the larynx, with or without catarrhal ulceration; or (2) a higher grade of inflammation with pseudo-membrane about to appear or actually present. Even in young children inspection of the fauces is to be employed. In the gagging of children caused by inspecting the throat I have several times seen the epiglottis. The chance of doing this depends upon the size

of the faucial cavity and is exceptional. Should a white exudation be observed in even small quantity any where in the fauces it is to be carefully examined. It is likely to be attended by more, and in a more dangerous locality, farther down. How are we to distinguish the croupous from the white exudation in other inflammations? Observe how adherent it is. This is the test, even *post mortem*, relied upon in our largest dead-houses, whether it is or is not croupous. The croupous exudation is attached firmly, and detached with great difficulty, being rooted into the follicles. Other exudations are detached readily. In case the exudation seen is not white, and especially if it be of a dirty dark color, the presumption is that it is croupous, this appearance being regular and expected if the exudations have been out a day or two. Other exudations are so easily detached by the motions of breathing and swallowing as not to remain long enough to be anything else than white. In case the dirty dark exudation is removed with difficulty, but more easily than when fresh, it is croupous. More recent exudation of curdy white color will probably be observed elsewhere, if it is looked for. It is in these cases in which there is exudation high up, and which may fairly be denominated diphtheritic, that we are apt to have most marked laryngeal paralysis, because the mucous membrane of the pharynx forms the covering of the posterior crico-arytenoid muscles which in normal inspiration when healthy enlarge the glottis and the mucous membrane is so swollen as to impede muscular action. If physical examination show enlarged glands, the inflammation is of higher type than the catarrhal.

Should physical examination be negative, or out of the question, we can then rely on a comparison of the rational signs only. This is here done in tabular form. The reasons for most of the signs will be apparent if the pathology is kept in view. Otherwise it is chiefly matter of memory—always treacherous when most wanted:

CASE OF INTESTINAL OBSTRUCTION.— LEFT LUMBAR COLOTOMY—RECOVERY.

BY PETER MANSON, M.D., GOLD HILL, NEVADA.

James Cook, æt 41, a Scotchman; came into my office about eight o'clock on the evening of the 27th of Sept., 1878, having travelled during that day by stage coach from Bodie, California, a distance of 130 miles, over a rough mountain road nearly all the way.

He said that his present illness commenced about six weeks previous, and that he had been under the care of the doctors of Bodie for intestinal obstruction. When first taken ill he went about three weeks without an action of his bowels, and was treated during that time with large doses of castor oil and other purgatives. His bowels were greatly distended, tongue dry and cracked, and suffered intensely from wind colic. One of the doctors of Bodie diagnosed the case typhomalarial fever. After three weeks treatment his bowels began moving freely, and continued so for eight or ten days, thin watery discharges. As soon as the stools assumed a little more consistency, the evacuations again stopped, excepting an occasional small stool. The above was his own account of his case during his six weeks' illness in Bodie.

On examination I found the bowels moderately distended with gas; pulse normal, no fever, tongue moist, and slightly coated. He seemed to think that if he could only get rid of the wind he would feel all right. In the region of the cæcum there was a round distention of gas; on pressing over this it would suddenly start, and fly around the colon to the region of the sigmoid flexure, abruptly stopping there; on pressing over the sigmoid flexure, the gas would again fly back to the ileo-cæcal valve. This led me to suspect an obstruction in the region of the sigmoid flexure. The patient said that he had been troubled a great deal with flatus for some months before he was taken down. He thought that his stools had been more narrow and ribbon-shaped than normal. On introducing my finger into the rectum I found a small quantity of fæces. There had been no evacuation of the bowels for five days previous. High up in the rectum opposite the left sacro-iliac symphysis I could feel a slight ridge along one

IN FALSE CROUP.

1. The invasion is sudden.
2. No adherent pharyngeal exudation.
3. Little fever.
4. Symptoms alarming from the first.
5. Morning remissions and evening exacerbations always.
6. Dyspnoea intermits.
7. Aphonia is never complete.
8. May have alarming symptoms developed suddenly without any serious lesion in the lungs.
9. Voice between attacks is natural.
10. Night attacks, seldom in day.
11. No barking cough.
12. Always begins with a whispering cough.
13. No false membrane ejected.

IN TRUE CROUP.

- Begins slowly.
May be such.
- Considerable.
Early symptoms mild, but become slowly and steadily more severe.
Not so, but gradually and insidiously increasing.
Dyspnoea remits only.
May be complete.
When alarming symptoms develop during its course we will find something to account for it in the lungs or throat.
Voice is more or less changed.
- Progressive impediment to breathing.
Begins with a barking cough.
Aphonia is developed after several days.
False membrane coughed up or vomited.

side of the bowel. The wall of the intestine felt as though it was thickened and somewhat contracted. I then carefully introduced a rectal tube up alongside of my finger, guiding the end into the apparently contracted bowel, but this manipulation caused him so much pain that I discontinued further explorations for the present, and prescribed a pill containing podophyllin, gr. i, ext. colocynth comp., grs. iv., ext. hyoscyamus, grs. ij., to be taken that night, and to report himself next morning. This was the only purgative that was prescribed during my treatment of the case.

I did not hear from him until the next night, when I received a call to see him at a friend's house near the north end of Virginia City. I found him suffering very much from distention of the bowels, colic and vomiting. The pill had not operated; he had passed no gas from his bowels, although belching up considerable quantities from his stomach. I ordered an injection of warm water, but was unable to inject any more than than would fill the rectum, which gave him no relief. I then gave him a hypodermic injection of morphia sulph., gr. $\frac{1}{4}$, atropia sulph., gr. $\frac{1}{100}$; prescribed one grain of opium to be taken every two or three hours if in pain; and ordered hot fomentations to be applied over the abdomen. Saw him next morning, found him no better; abdomen more distended, still vomiting, pain somewhat relieved by the opium. Tried injections of warm water again, with the addition of asafœtida, but obtained no relief, not being able to inject any more at a time than would fill the rectum. During the afternoon I called Dr. Hall, of Gold Hill, in consultation. The doctor recommended ext. belladonna in addition to the opium. During the next five or six days we invited Drs. Conn, Aiken, and J. Manson, of Virginia City, to see the case with us at different times, and everything that was likely to benefit the patient was diligently tried, but without relief; the patient getting worse all the time. It was quite evident the obstruction was in the region of the sigmoid flexure. We could never succeed in introducing the rectal tube further than the left ileo-sacral symphysis; nor inject more liquid at a time than would fill the rectum.

On the seventh day of our treatment, we chloroformed the patient, and Dr. Aiken tried to introduce his hand into the rectum to explore the sigmoid flexure more thoroughly, but was unable to

do so. We then introduced a trocar and canula into the large intestine in the region of the cæcum, and let escape a large quantity of gas, which greatly relieved the distention, and enabled us to arrive at a more correct diagnosis of the case. We could feel a hard ridge about two inches long along the sigmoid flexure, and there seemed little doubt but that the cause of the obstruction was a stricture of the bowel in that region, and the only alternative was an artificial anus. To this the patient reluctantly consented, after telling him that the false opening might be closed up at some future time, if he survived the operation, and the natural passage ever got well so as to justify the artificial one being closed. There were no bad effects from introducing the trocar into the cæcum. The bowels were again greatly distended, tongue dry and cracked, with a brown coating over it; temperature not higher than $102\frac{1}{2}$; pulse 120, and the patient's strength failing fast. It was very evident that we would soon lose our patient if nothing more was done, so we decided to operate at once. Drs. Conn, Weber, Bronson, and J. Manson, of Virginia City, were present by invitation. After the patient was thoroughly chloroformed, Dr. Bronson, who has a small hand, succeeded in introducing it into the rectum, but could not introduce it high enough to make any further discoveries. I was ably assisted in the operation by Drs. Hall and Conn, Dr. J. Manson attending to the chloroform. In Bryant's "Practice of Surgery," page 367, he says, "that in irremediable stricture, or mechanical obstruction of the rectum from any cause, Callisen's operation of opening the colon in the left loin should always be followed; and when the seat of obstruction is higher than the rectum, and it is a point of doubt whether it be in the sigmoid flexure or transverse colon, Amussat's operation in the right loin should be performed." In this case the stricture or obstruction was in the lower end of the sigmoid flexure, so that there was little or no danger of not getting above the obstruction by operating in the left loin.

There are three methods of operation, that of Callisen, by longitudinal incision, Bawden's, by oblique incision, and Amussat's, by transverse incision. These different methods of operation are fully described in nearly all recent works on practical surgery, so that it is unnecessary to repeat them here. I chose Amussat's, it being the oper-

ation chiefly recommended at the present day in case of adults. Bryant prefers the oblique incision.

I commenced the operation by making a transverse incision in the left lumbar region, three inches in length about midway between the ilium and last rib; the centre of the incision corresponding to a point half an inch behind the mid-point between the anterior and posterior superior spines of the ilium, according to the rules laid down by Allingham in his work on diseases of the rectum. The fascia and muscles were carefully divided on a director, layer by layer, keeping the bottom of the wound the same length as the incision through the skin. When the incision was made through the lumbar and transversalis fascia, the adipose tissue was unravelled, exposing the colon, which bulged up into the opening, and was easily recognised by its greenish color, distended appearance, &c. The bowel was then caught up from behind by a tenaculum, and pulled forwards and outwards to the surface of the wound, keeping clear of the peritoneum. A curved needle armed with a strong silk thread was then passed through the edge of the wound into the bowel, diagonally across, and out at the opposite side, then another at right angles to the first. The bowel was then opened between the two sutures, the loops drawn out, cut and tied, thus making four sutures, and securing the bowel to the edge of the wound. The balance of the edge of the bowel was then fastened to the edge of the wound by silver wire sutures. The anterior and posterior parts of the wound were drawn together by deep wire sutures, and the operation completed. Works on surgery recommend that the posterior part of the wound be not drawn together by sutures, but left to heal by granulation. I think that it would have been better if I had not closed the posterior part of this wound, as the sutures gave way, and the wound had to heal by granulation. During the operation not more than an ounce of blood was lost; no vessels were cut requiring a ligature. There was only slight hemorrhage from the deep lumbar muscles which was easily controlled by a styptic application, doing no more harm than causing a slight delay in the operation. Shortly after the operation was completed, the bowels commenced moving, and discharged enormous quantities of soft feces through the artificial anus for several days.

It is not necessary to give a history of the patient's condition from day to day. I think that it will embrace all that is required in this case, by stating that the next morning after the operation, the temperature and pulse were normal, tongue moist; and from that time the patient never showed an unfavorable symptom from the effects of the operation. The upper edge of the bowel adhered to the edge of the wound by first intention; but the sutures in the lower side cut through, and allowed the edge of the bowel to drop down into the wound. This gave me considerable anxiety for several days, in case some foreign matter might work its way into the peritoneum, but the constant pressure of feces kept the edge of the bowel pressed out against the wound, which soon formed adhesions, and gave no trouble whatever. In looking over the statistics of these operations, I do not find that the edge of the bowel is very apt to drop away from the wound in case the sutures should give way. Parts of the wound that did not heal by first intention, healed very nicely by granulation, and the patient was soon able to be up, and around. On the seventh and eighth days after the operation, his bowels moved per natural anus; then after that they would only move per natural anus every third or fourth day until the patient was up and around on the streets, when he put a leaden plug into the artificial anus. He had then a natural operation every day; but it caused him so much pain through the pelvis, that he took out the plug, and allowed the bowels to evacuate themselves through the artificial anus. I think that in all probability when the bowels became obstructed, the pressure and distention from above may either have caused the stricture to become inflamed and swollen so as to occlude the narrow opening altogether; or the bowels loaded with feces may have pressed down on the stricture in such a manner as to prevent anything from passing through. After the operation the pressure was taken away from above so as to relieve the stricture, and allow the stools to pass through. This case may have been similar to a case mentioned by Hilton in his twelfth lecture on rest and pain. He says "that upon making a *post mortem* it was found that there was no cancer. There had been contraction of the intestine where the sigmoid flexure of the colon joins the rectum. This had produced an obstruction, and, consequently a distention of the colon.

The weight of the fæces had caused the colon to descend considerably below its normal position, like an inverted syphon; the fæces, therefore, had to ascend, and then could not pass over the fixed point where the constriction had taken place, the weight of the colon making this part an acute angle, and so producing insuperable constipation. When the opening was made into the upper portion of the colon, the weight of the fæces was taken off; the accumulation in the lower part was then forced upwards and made to pass through the rectum."

After the wound was healed, and the patient able to be around, he complained of a great deal of pain through the pelvis, radiating down the right thigh. He would have an evacuation of mucus per natural anus five or six times a day; and the disease in the upper part of the rectum seemed to be steadily progressing. Two and a-half months after the operation, the small hard ridge that I detected during my first examination, widened out into a thickened mass surrounding nearly the half of the upper part of the rectum. I was unable to decide whether the growth is malignant or not, but I am of the opinion that it is. If the disease should ever get well so as to leave no danger from future obstruction, could the opening in the loin be closed up, as I encouraged the patient to believe? There are cases on record where the artificial anus has contracted, and closed by nature. In the *Am. Jour. of Med. Sciences*, Oct. 1873, Dr. Erskine Mason, in an able article on lumbar colotomy, expresses the opinion that the artificial anus could be closed up; but he says in the same article that Mr. Allingham states in his work on diseases of the rectum, that he has made attempts to close this opening, but as yet without success, and this also, Mr. Allingham states, has been the experience of Mr. Bryant. In the *Boston Med. and Surg. Jour.*, Oct. 3rd, 1878, Drs. Cullen and Homans, report a case in which they tried to close the opening, but did not succeed. They had decided to wait several months, and if the contraction of the wound which was then going on rapidly had ceased to take place, to operate again.

In regard to morphia causing constipation in these cases, Sir Jas. Paget remarks in connection with a case that he operated on for cancer of the rectum; that since the fæces had been no longer

subjected to the influence of the rectum, morphia had completely lost its power of constipating, so that the patient could enjoy this drug without becoming constipated. Mason says that he has never seen this statement confirmed by other operators, nor has his experience verified it. In this case we tried morphia and other opiates, but they constipated him so that he preferred to suffer the pain in the pelvis rather than the inconvenience from constipation. On the 19th of December, three months after the operation, our patient started for his home in Glasgow, Scotland, arrived there safely, stood the voyage well and attended to his own wants all the way.

I report this case more for the purpose of recommending general practitioners to try this operation for the relief of their patients requiring it. It would seem to me that a great many general practitioners with a limited experience in surgery think that these operations are only to be made a success in the hands of more eminent surgeons in the large hospitals. I think that nearly all eminent surgeons within the last twenty years speak favorably of this operation. In E. Mason's article in the *Am. Jour. Med. Sciences*, he says that the diseases for the relief of which it has been done, and for which we advocate its adoption, are these: cancer, intricate stricture of the rectum or colon no matter from what cause, obstruction from the pressure of tumors, ulceration of the rectum or colon in some of its phases, and for the relief of vesico-intestinal fistula, especially in the male. He also says in the same article, among the names of those who have probably done most to cause this operation to be favorably received and now so generally done throughout the United Kingdom, though it may be chiefly in London, he would mention the names of Curling, Hawkins, Holmes, Bryant and Allingham, though we are by no means unmindful of the other hospital surgeons of London who have done much in this direction, so that at the present it might be difficult to find one who has not both performed and publicly advocated the operation. Mason also says that in the majority of cases the operation will be found easy, and as far as the life of the patient is concerned, safe.

Mr. Maunder in a clinical lecture published in the *London Lancet*, Jan. 1878, says that he has operated thirteen times, eleven in the left, and two in the right loin. He also says, that in more

than one instance he regretted very much that the operation had not been performed sooner, although it afforded an easy death. This in itself is sufficient justification for an operation which can be done with comparative facility and rapidity, as easily and as quickly as the majority of cases for strangulated hernia. The operation in this case of ours proved to be a very easy one; any competent surgeon could readily have performed it. There was no trouble from hemorrhage, no vessel of any importance was cut. The incision was only three inches in length, still it gave plenty of room to pull out the bowel. The bowel being greatly distended made the operation less difficult. When the colon is empty and likely to give some trouble in finding it, it would be an advantage to make the incision longer.

If the disease causing the stricture in this case should prove to be malignant, it will probably cause other complications and carry the patient off in a short time; but the operation has prolonged his life, and relieved his sufferings to a very great extent. It enabled him to get home to his relations in Scotland, and enabled us to feel that we had done our duty to our patient.

TRANSFUSION AND PLETHORA.

TRANSLATED BY DR. J. WORKMAN, TORONTO.

The above interesting *brochure* of 125 pages, in the German language, by J. N. Müller, Prof. of Pyhsiology, Christiana; though published in Norway, exhibits an instructive report of a series of very careful experiments, made by the author on some of the inferior vertebrate animals, chiefly dogs and rabbits, with the view of ascertaining the physiological effects of blood transfusion.

It would be incompatible with the scope of the Journal, or the limits of our space, to reproduce the numerous details given by Prof. Müller; we therefore limit our quotations to transference to our columns of the ultimate conclusions of the author on the effects of blood transfusion, based on his own observation and that of other eminent authorities.

"Has transfusion of Lamb's blood ever any beneficial effect?" Both old and recent researches show that by the aid of lamb's and calf's blood, dogs that lay in death agony, from loss of

blood, could be revived; but only for a short time. The transfused blood corpuscles may, for a short time, (most likely only a few hours, as they speedily vanish, and their colouring matter is thrown out), introduce a certain quantity of oxygen, and the mechanical circulatory relations may, as Landois observes, apparently be improved; but this is about all. Whether this foreign blood can bring to the organism any nutrient material, is very doubtful. The harmful influence, (hæmorrhage, kidney disorder, &c.,) exceeds the benefit. In the lamb's blood infusion in man, the quantity transfused has been comparatively small, apparently scarcely $\frac{1}{8}$, never $\frac{1}{6}$ of the normal human blood-mass. How far, by means of so small an infusion any profitable result to the nutrient relations may be attained, and how far in this case it may succeed, that either albumen or blood colouring matter may be discharged in the urine, I cannot, from my own observations give answer. I have never made either direct or indirect transfusion of lamb's blood, in small quantity in the dog; they hardly merit experimenting; the shadings before and after the transfusion would certainly be so trivial, that a very detailed and methodical research would be requisite, in order to arrive at any definite conclusion. Speaking, however, from what I have observed, I feel in any case justified in expressing the opinion, that the favourable influence, when any such is perceptible, will scarcely counterbalance the disturbance which is caused by the operation.

If we make a retrospection of the results of lamb's blood transfusion in man, we shall soon discover that they correspond with the phenomena of physiological experiments. As far back as 1667 the French physician Denis, had made very significant observations. In one experiment the individual, within two hours after transfusion of lamb's blood, lost some drops of blood from the nose; in another experiment with calf's blood, the individual was taken with fever—and pains in the region of the kidneys, and voided bloody urine. Next day he passed a large glassful of urine, as black as if mixed with soot. On the third day he passed an equal quantity, nearly as dark as that of the preceding day, and he bled very freely from the nose; on the fourth day the urine became lighter coloured, and by degrees it came back to

the natural color. The Bachelor of Theology, Arthur Coga, to whom the often quoted King, likewise administered lamb's blood by transfusion, had after a second transfusion, transient fever.

Of the resumed transfusions of lamb's blood in late years, the following have been the observed results:—1st, That not seldom strong fever has ensued; such occurred in one experiment, (by Hasse), in which death took place shortly after the transfusion; the temperature rising to 42.8°C (109°Fah.) 2nd, That the urine holds largely blood coloring; it seems almost always to be of dark color on the first day. That often the urine has a large quantity of blood colouring, was observed by Czsony, who found in the bladder a quantity of hæmatine corresponding to that of the transfused blood. That infarctions also, after lamb's blood infusions in man, may occur has been shown by a transfusion made by Masing in St. Petersburg, from which death resulted. On dissection, globular infarctions were found in the substance of both kidneys. Icterus has been observed to follow in some cases. In a puerperal woman, who died in 20 minutes after a transfusion of lamb's blood, Herr Ponfick showed by microscopic examination, made almost immediately after death, that in the human vascular system the transfused lamb's blood corpuscles are destroyed. The phenomena are alike, whether lamb's blood be injected in the dog or in man. The reason why a comparatively smaller number of dangerous symptoms are observed in man, lies certainly almost solely in the fact, that the quantity of transfused blood has usually been only $\frac{1}{10}$ or $\frac{1}{15}$, and at most $\frac{1}{5}$ of the normal blood mass. In the well known experiments of Hasse, the quantity transfused was in maximum 200 cubic centimetres, and in the average 150 C. C. M. (cubic centimetres). If, however, we put the question, whether the quantity named by the physician was actually introduced into the vascular system, the reply must be in the highest degree doubtful. Hasse, Gesellius, and some others, have estimated the quantity of blood introduced, in a most incorrect manner,—namely: by noting the rate of the outcoming current. I have myself twice discovered that great error is thus fallen into; the transfusion in these instances terminated in $1\frac{1}{2}$ minutes, and there was no apparent hindrance. After the transfusion the carotid of the sheep was perfectly permeable, and

the blood flowed in a copious stream. I found by weighing the animal before and after the transfusion, that the blood introduced was only 10 or 12 C. C. M., so that the operation had to be repeated. The only correct and reliable manner of estimating the quantity transfused, is by weighing the animal experimented on before and after the transfusion, and as direct transfusion lasts only 1 or $1\frac{1}{2}$ minutes, the loss by respiration and perspiration is too insignificant to be taken into account.

It may now be hoped that even the most enthusiastic admirers of lamb's blood infusion, after the researches of Landois, Ponfick, and myself, and the unfortunate cases of Hasse, Masing, and Schmidt, as well as the negative results of the transfusion experiments of Fiedler and Birch Hirschfeld in Phthisis, will at last admit, that in this relation the enquiry has been conducted too superficially and thoughtlessly, and that Hasse, without a just consideration of lamb's blood infusion, has rejected that of defibrinated man's blood, of which his own single experience afforded a fortunate result. The grounds on which Hasse gave up transfusion of defibrinated man's blood, were, 1st, that lamb's blood is more active, and its effect of longer duration, and 2nd, that we may thus benefit the sick, without injury to the healthy. As regards these reasons, the first is now fully disproved; and as to the second, it is incontestible; but the injury to the sound person is, as a rule, hardly worth consideration.

Happily the occasions for transfusion in man, are so limited, that the cases in which it is necessary to abstract blood from one person to save the life of another, are of but rare occurrence. We must ever keep in mind, that the transfused blood in itself serves not for nutrition, but that chiefly, and probably exclusively, it benefits the organism by the red corpuscles.

Only after copious hemorrhages, or after certain poisonings,—for example, by carbonic acid gas, and further, in some chronic anemias, in some cases of chronic anemia after blood loss, and of chlorosis and leucæmia, can transfusion be indicated. The indications must be sharply and reflectively defined, if medicine is to draw any valuable conclusions from the observed phenomena. Random transfusion, in all possible infectious diseases,—as the puerperal, typhus, or *en bloc*, in the most varied forms of diseases with

defective nutrition,—for example, phthisis,—any such experimentation represents a far backlying standpoint of medicine; not the loud trumpetings of solitary cases, but the quiet, and the faithfully recorded experiments of physiological and pathological investigators, will, most probably, extend the field of the employment of transfusion by the side of the sick bed.

Correspondence.

WHAT HAS THE ONTARIO MEDICAL BOARD DONE FOR THE PROFESSION?

To the Editor of the CANADA LANCET.

SIR,—Permit me through your valuable space to call attention to certain facts, which are a source of grievance to the medical fraternity, and ask what has the Ontario Board done for the Profession, especially as far as the Eastern counties of this Province are concerned? I believe it has been organized to elevate the standard of medical education, to promote the welfare of the profession in general, and protect it against the aggressions of charlatanism and quackery. Such being its mission, it has, to a certain extent, succeeded in the former, *i.e.*, in elevating the standpoint of requirements for qualification of the honest practitioner, at the same time, almost doubling his expenses; but in the latter it has signally failed. The fees in all the medical schools are higher than they were a few years ago, to meet the higher standard exacted by this Board; and when the student graduates in any University, by which perchance he is drained of the last cent of his hard earning, he has of necessity to make the raise of one hundred or one hundred and fifty dollars more to enable him to pass the Ontario Board before he can do anything for himself. Then he has to submit to an annual tax, to support this Board and a public prosecutor, whilst, at the same time, the growth and spread of quackery seem to be more luxurious and rampant than ever, and the young practitioner, with all his dearly acquired qualifications, makes his exit into the world to battle his way through life entrammelled by professional etiquette, and thereby placed under many disadvantages, to compete with a host of empirics for whom public sympathy has been enlisted by the feigned persecutions of the Boards.

I happen to be one of the unfortunate ones who had to pass the aforesaid ordeal, and began practicing a few years ago in one of the Eastern counties of this Province, where I found to my great surprise and disgust on an average two unqualified persons for every one qualified in the practice of medicine, surgery and midwifery; especially the latter, as you will find one, two, or perhaps three midwives in every section giving their services at the modest rate of one dollar for each accouchement, thus taking the bread out of the mouths of those who have given their time and money to qualify themselves for the practice of the profession, and in many instances jeopardizing the health and prospects, and not unfrequently sacrificing the lives of their dupes.

I have already incidentally alluded to the public prosecutor. Sometime ago he paid a flying visit to this part of the country, and brought to the bar of justice an offender—an empiric will I say?—No, but a clever young man, a graduate of one of the principal Universities of the Dominion, who had worked his own way through his collegiate course, and graduated with honors, after which he went to practice with the intention of presenting himself before the Board as soon as he could earn sufficient funds to defray his expenses. Now I ask why should this individual be selected whilst the whole country is bespread with those vampires, who fatten upon the credulity of the public, or why not scour the country of all pretenders, if there is any way of putting a stop to this evil, which is degrading the profession to such an enormous extent? I fear ere long the initials M.D., affixed to a man's name will be construed to mean humbug, as every Tom, Dick, and Harry, and every ignoramus in the country is at liberty with impunity to style himself Doctor. It may be said that the remedy is in our own hands, and that we should personally prosecute those offenders, but I feel satisfied that any man trying the experiment and then facing public indignation, will never try the same again.

I was notified sometime ago by the medical Registrar that my subscription towards the common funds was due, and threatened with prosecution unless the same was remitted in due time; but I here publicly declare that unless this section of the country at least, is purged of charlatanism I shall not pay one cent more towards the main-

tainance of the Board, and if prosecuted will test the legality of such procedure. I am, however, willing to contribute double, or even fourtimes the amount of annual fee at present demanded, if necessary, provided that a proper prosecutor be appointed, and paid to ransack the province, from North to South and from East to West, and free the public and profession from the annoyance of such nuisances. I am credibly informed that the present prosecutor has been invited time and again to this Eastern district, but never filed an appearance save one, the occasion already referred to. Thanking you for inserting this in your valuable space.

I am, yours truly,

JUSTICE.

March 17th, 1879.

To the Editor of the Canada Lancet.

SIR,—Your correspondent of last month (Student) endeavours to bring the contempt of the profession upon "a regularly qualified medical practitioner in this village, who attends cases of midwifery five miles distant from his office for a fee of two dollars and fifty cents, this, he presumes, including the fee for the usual visit after confinement." The charge is not true—I have no such case on my books, the others deny the charge. If he had said, attended a case, I could easily suppose he was innocent of intentional deceit, but when by the expression—attends cases—he makes out a practice, I greatly fear the sin is a wilful one. He appears anxious to obtain a copy of the Code of Ethics. I trust you will, if possible, supply him; in the meantime he can be assured that bearing false witness against his neighbor is not recommended, neither will he find any intimation that he is at liberty, when he wishes to bring contempt upon another to offer "presumption" for facts. Whether an M.D., is guilty of contemptible conduct by attending cases of midwifery, five miles (or five rods) from home for \$2.50 with or without the extra visit, I will leave for others to decide, as the practice is not in vogue here.

I think, Mr. Editor, you would be justified in demanding some explanation, or in default, in publishing the name of the student who is so anxious to maintain the dignity of his expected associates. Thanking you for the manly stand you have always taken in maintaining the true dignity of the profession.

I remain yours truly,

Odessa, March 29, '79.

W. W. MEACHAM.

To the Editor of the CANADA LANCET.

SIR,—The Registrar-General in his report, speaking of the excessive death-rate amongst children, says: "This reflects but little credit upon the manner in which the resources of medical science are applied in the nineteenth century, and the method in which sanitary regulations are enforced." If he intends this to apply to the *people*, he is right; if he intends it to apply to the medical profession, he is *wrong*. So far as my experience of more than twenty years goes, medical men are faithful in urging attention to sanitary regulations; but as to "applying the resources of medical science," let me tell the Registrar-General that many parents are so sordid that they would rather part with their children than their dollars; and I venture to say there is not in Canada a medical man of extensive experience who has not heard, over and over again, the blood-curdling expression "It is only a child." A vast number of children die without medical attendance; and in a great many instances the doctor is called merely to save appearances. I have been called time and again to see moribund children, and when I pronounced the case hopeless, the parents have, with the utmost coolness, said:—"We didn't expect that you could do anything; but we didn't like to have it die without a doctor having seen it." It is also true that, in the case of children, medical advice is not sought as early as it should be—not until the disease has made considerable progress—and the consequence is an increased number of fatal cases. To use a common phrase: "The Doctor had'n't a fair chance."

In reference to the *indefiniteness* of the reports as to the cause of death. Medical men, in country practice, are often called upon, in the case of children, and frequently in the case of adults, to make a post-mortem diagnosis, from a report of the symptoms of the deceased person, taken from the lips of parent or friend, and to fill up a death report. I have invariably refused to fill such reports. It is possible that others have been more accommodating. Either let medical men make a post-mortem examination, in such cases, and charge for it, before filling a death report; or let the case be reported: "Died without the benefit of the Doctor." Such a rule would, I believe, do away with a great deal of indefiniteness.

Yours truly,

Winnipeg, April 8, 1879.

N. AGNEW.

Selected Articles.

ANTISEPTIC MIDWIFERY

Dr. J. Milner Fothergill communicates the following to the *Med. Times*, Philadelphia.

"Perhaps the most interesting communication made to any of our societies lately is that of Dr. Matthews Duncan to the Medical Society, on *Antiseptic Midwifery*. So important was it, and listened to with every attention by a distinguished audience, that an abstract of it may be acceptable to your readers. Being a great personal friend of Prof. Lister, having left the northern metropolis at nearly the exact time Prof. Lister turned his steps southward, it might *a priori* be surmised that Dr. Duncan would be an advocate of the antiseptic plan of treatment. Consequently a large number of practitioners came to hear, and also to learn how antiseptics are applied to every-day midwifery. Dr. Duncan commenced by saying that there is no subject which excites more professional interest or more interest among the general public than that of puerperal deaths. A wife, the mistress of a household, the solace of her husband, the proud mother of a number of happy children, is suddenly snatched away after an auspicious event. There is something so sad about such deaths that all would welcome with heartfelt joy any plan which promises to lessen such disastrous events. Puerperal deaths own various causes, but by far the most frequent and prevalent causes are septicæmia and pyæmia. Both these diseases involve or imply inflammatory processes, and both are essentially septic. It is against them that antiseptic midwifery wages war, and in which, he said, it had already achieved great success. The object of the paper was to spread and diffuse further knowledge on this important matter, and to stimulate further inquiry into it, with a view to the more general adoption of the beneficent antiseptic methods. Already, said Dr. Duncan, more pain is prevented, more life saved by antiseptic methods than by all the recent improvements of modern midwifery combined; and there is no prospect half so bright and encouraging as that held out by the general adoption of the antiseptic treatment of the parturient condition. And, it is certain, all fervently wish that these high hopes may be realized. He would not, he said, proceed to discuss that division of the subject, the treatment of the blood by which the fermentation or sepsis is carried throughout the organism, as by the use of hyposulphites, introduced by Polli, of Milan. He would confine himself to the consideration of the local use of antiseptics. He pointed out that the healthy lochial discharge of some women approached in smell and odor putrefactive discharges, so that it was not always possible to discriminate them; but

in all doubtful cases it was well to treat them as if putrefactive. The putrefying lochial discharge may find its way directly into the blood by the uterine sinuses, or be taken up by the lymphatics; in either case a state of blood-poisoning, or septicæmia, is set up. The removal of all putrefying material is essential to the arrest of this blood-condition. The antiseptic measures to be adopted consist of the removal of the offending material by the obstetrician's finger, or a pair of forceps, previously covered with an antiseptic. In some cases it becomes necessary to introduce the hand, which should previously be carbolicized, by being smeared with the ordinary carbolic acid and oil mixture. By such treatment of the hand preparatory to its introduction into the female passages, two ends are attained. If there be no great amount of putrefaction present, the hand thus treated carries with it no danger of leaving putrefying matters, or germs, on the bared surface; while on the other hand it is a means of applying an antiseptic to a surface on which a putrefactive process may be actively progressing. Then as to injections into the uterus, he advocated carbolicized water and the gentlest possible force sufficient to throw the fluid into the uterine cavity. Neglect of these precautions might lead to the introduction of air or fluid into the uterine sinuses, and produce baneful results. To secure gentleness of pressure, it was of the first importance to have free and sufficient exit for the fluid injected, and often it became necessary to use a double canula. The running out should be carefully watched, and the moment the outflow ceases the injection should be stopped. He did not agree with those who advocated the leaving of the intra-uterine tube *in utero* to act as a drainage tube. If antiseptically plugged, it no longer acted as a drainage-tube, and not so plugged it was a source of danger in itself. To secure gentle pressure it was well to have a long tube, so that the fluid could be held above the patient; but it should not be raised to an undue height. A warm carbolic lotion of the strength of one in fifty was useful. About half a pint or a pint should be injected at once, and the uterine cavity should be washed until the fluid returns clean. It is not desirable to have too frequent daily injections. Such irrigation might be desirable in some cases even when no putrefaction was present. I am not now engaged in midwifery practice, and never lost a patient in the parturient or post-parturient state, but I can remember a number of cases where the lochia became offensive, where such irrigation would probably have given much comfort to the patient and those in attendance upon her. There was a certain risk of the carbolic acid producing poisoning of its own in certain cases, but Dr. Duncan said that the production of dark-colored urine merely, was quite unimportant. At times more serious symptoms were

produced, as shivering, cyanosis, and a weak and fast pulse. So far as he knew, no fatal case had yet occurred.

The great modern improvement in antiseptic midwifery was the prophylaxis of puerperal septicæmia. This subject could be divided into the prevention of danger from within and of danger from without. In addition to the most scrupulous carefulness as to perfect cleanliness about the parturient woman, in different Continental schools, they had adopted the plan of using carbolized ointment for smearing the finger previous to its introduction into the vagina, and systematic carbolized irrigation of the uterus after parturition, with most excellent results. As to the use of the spray in labor, at the moment of the birth of the child, it had been attempted, but was found to be very troublesome. The spray had been tried in the performance of Cæsarean section, as it had in the operation of ovariectomy, with good results. It certainly seemed very desirable that the spray should be used for the treatment of the abdominal as well as the uterine incision; but the drawback here was that, in spite of all care on the part of the operator, septic material might find its way into the uterus through the natural passages. Returning to the subject of antiseptic midwifery, he said that now it was comparatively easy for physicians and nurses to keep themselves medically clean, and that the danger of puerperal septicæmia being carried by medical men, and nurse, from one patient to another was much diminished,—an expression of opinion which elicited some adverse comment from Professor Playfair, who advocated the old plan of refraining from midwifery for a time, when it was found that one case of puerperal fever followed after another. Dr. Duncan pointed out that if this principle was carried out to its logical conclusion the general practitioner would have to abandon all his other practice if he, by any oversight, saw a case of scarlatina.

If a piece of membrane or placenta was retained in the uterus, it was well to use a three per cent. solution of carbolic acid for at least twelve days after the accouchement, as a prophylaxis against danger arising from within. Others advocated a solution of the subsulphate of iron with glycerin under these circumstances. But poisoning from within was not so common a cause of septicæmia as poisoning from without; and care on the part of the obstetrician would be found the great means of obviating puerperal septicæmia. It was by avoidance that puerperal mortality was to be reduced in amount. When septicæmia had once been started, then the treatment was no longer that of prevention, but that of cure. Dr. Duncan, as he announced at the commencement of his lecture, did not go into the treatment of the blood in puerperal septicæmia, but perhaps your readers will not feel aggrieved if his remarks are supple-

mented by some others on the management of the general condition. When symptoms of septicæmia set in, not only should the irrigation of the uterus several times a day be carried out, but antiseptics should be administered internally. Chlorate of potash and the sulphites and hyposulphite of soda, together or singly, should be given freely by the mouth. In one case in my by-past general practice, a delicate woman was confined of a dead putrid child; on vaginal examination the head felt like a leather bag with a lot of pieces of broken pot in it, the cranial bones being all loose and out of place, and the fœtus discolored and far advanced in putrefaction. In this case the lochia became very putrid and stank, and there were evidences of blood-poisoning on the part of the mother. By means of vaginal injections of a solution of the sulphites and the internal administration of chlorate of potash and sulphite of soda, the ominous symptoms passed away, and the woman made an excellent recovery. Such was a successful case treated antiseptically, but in a very primitive way. Now the management of the case would be considerably more advanced and scientific. In addition to the injections and the internal administration of the various antiseptics, it would be well to influence the air respired by the patient, and to place in the sick room some disinfectant; the drawback to this being the objectionable smell of most of these potent agents. Sanitas is odorless, and solutions of thymol are not offensive certainly, if they do not form a very agreeable scent, and such should be used freely, being sprinkled over the floor, and, better still, being well sprayed about the room at frequent intervals. This should be continued as long as any signs or symptoms of septicæmia remain. That such should be the line of treatment to be pursued in all cases, either of established septicæmia or where it is threatening, there can be no doubt remaining. The question then arises "Shall antiseptic precautions be taken in all cases of parturition?" As regards my personal opinion, it is affirmative of this proposition. Antiseptic precautions in the first place, are not expensive. They would form a species of cheap insurance. In the next place, they are free from danger if used carefully. Dr. Duncan pointed out that careless irrigation of the uterus might lead to serious consequences; air or fluid might be forced into the uterine sinuses; but against this may be set the presumption that the man who is careful enough to adopt antiseptic obstetric precautions would be careful enough to see the antiseptic method carried out properly in the one single source of possible danger, the irrigation of the uterus. As to the argument which might be raised that this involves unnecessary fuss and trouble, the answer must be returned that after certain unpleasant incidents it is commonly found that a very little care and foresight would have

prevented the disasters. All preventive medicine has for its *raison d'être*, and many, if not most, practitioners will probably soon adopt antiseptic midwifery; and as to those who do not, it is probable that when they do have cases of puerperal septicæmia they will find their conduct and management of cases sharply criticised. The obstetrician should carry with him, as part of his armamentarium, a bottle of carbolyzed oil with which to anoint the finger at each vaginal examination and to anoint the dorsal surface of the hand and arm in turning. Also the instrument might be smeared with this antiseptic before being applied, in the cases which require them. This would involve their being thoroughly cleaned; and then it is to be hoped we will hear no more of such sad cases as that reported in a recent number of the "Confessional" commenced in the *British Medical Journal* quite lately, where a medical man owned that after delivering a woman with his forceps he forgot to clean them, and the next woman delivered with the forceps died of septicæmia. This matter cropped up in the discussion on Dr. Duncan's paper, and Dr. John Brunton pointed out how the wood of the handles of midwifery forceps often shrank from the metal, thus leaving a crevice in which putrefactive material might lodge. He exhibited his own forceps which he had for years in constant use; they consisted entirely of metal, nickel-plated, and their condition was admirable. In addition to the above, a little carbolic acid might be carried, in case it turned out that the child was dead, and it might be well to irrigate the uterus in a few hours, so as to prevent any putrefactive change with its consequent dangers. An irrigation of the uterus once a day, in all cases, with carbolyzed water, would be a cleanly practice, as well as a sanitary precaution, in midwifery practice, and might be adopted generally with advantage.

How far the use of carbolyzed oil on the obstetrician's finger would tend to prevent that sad accident, syphilitic poisoning, it is difficult to say. An answer only could be given after a considerable experience by many and numerous individuals. But antiseptic midwifery must not be looked at from the point of view of the safety of the accoucheur, but from that of the safety of the patient. Where operative measures are anticipated, I venture to think that antiseptic precautions will always be taken, after the evidence we have already before us.

And, lastly, comes the cause of all this, the thing born,—the infant itself. Dr. Duncan said that young organisms are readily poisoned septically. It appears that ulceration of the stump of the umbilical cord has been followed by blood-poisoning in some cases, and that pus has found its way into the umbilical vessels. It is well then to dress the stump antiseptically, by enclosing it in a

piece of lint treated previously to an application of carbolic acid and oil. An animated discussion followed Dr. Duncan's paper.

A case of *opium-poisoning* treated successfully by the subcutaneous injection of atropine recently occurred in the practice of an ex-house-surgeon of the West London Hospital.

PELVIC PERITONITIS AND CELLULITIS.

The following clinical lecture by Wm. Goodell, M.D., of Philadelphia, is reported in *THE HOSPITAL GAZETTE*. This is a subject which concerns all gynæcologists very deeply, because the conditions which it includes may follow almost any gynæcological operation:—

Dr. Thomas, of New York, and some others of like high repute are in the habit of dividing this disease into two distinct diseases and of treating of each separately—pelvic peritonitis and pelvic cellulitis—but I prefer to consider them together, first, because it is usually impossible to draw a sharp line of division between the two, and, secondly, because cases occur but rarely where the conditions exist apart from each other. To show how closely connective tissue and peritoneum are associated in the parts adjacent to the womb, I have only to point to the broad ligament where there is a double layer of peritoneum bound together by connective tissue. (Pelvic peritonitis is an inflammation of the parts of the peritoneum adjacent to the womb, while pelvic cellulitis is an inflammation of the underlying cellular tissue.) I shall not speak in this connection of all the adjacent pelvic cellular tissue—but only of that around the Fallopian tubes, ovaries, broad ligament and neck of the womb and of that connecting the womb with the bladder.

Pelvic peritonitis and cellulitis occur sometimes as a result of labor. You find a woman on the third day after labor suffering from a painful inflammation of the broad ligament which you will be very liable to mistake for puerperal peritonitis, but which you can distinguish from that condition by discovering how promptly it yields to morphia.

Again this condition may arise after a miscarriage and is especially frequent after criminal abortion. Occasionally it is brought on by direct violence applied to the parts, or by septicæmia, or as a symptom of the absorption of putrescent discharges. As I have just told you, it may follow almost any operation upon the female genital organs, even the slightest. A patient, for instance, comes to your office with a constant flow of blood from the womb, you diagnose the presence of fungous granulations of the lining membrane of the uterus and, introducing a curette, scrape them

out. There is some little local soreness felt after the operation, and on the day following the patient has a slight attack of peritonitis, and is confined to bed for two or three days with a bounding pulse and high temperature.

Again you are led, perhaps, to put a sponge tent in the womb, and are surprised the next day to find your patient in the midst of a violent chill and suffering from a great deal of pain in the region of one or other of the broad ligaments.

The disease usually begins with a rapid rise in temperature, chills, and agonizing pelvic pain. Generally the attack is slight and easily subdued, but in the more serious cases there will be marked night-sweats, meteorism, dysuria, etc. What do these symptoms mean? The pain is due, of course, to the inflammation and plasma thrown out. The chill is the result of the shock to the nervous system, while the dysuria is caused by an exudation in the neighborhood of the neck of the bladder which presses upon it.

So much for the general run of cases. The attack, however, may not always begin with a chill. The first symptom may be the local pain. Indeed in some cases—cases of insidious peritonitis—there is no chill, nor pain, nor fever.

I have no doubt that just as the dissecting table leads us to suppose that there are but few lungs which are entirely free from adhesions of one sort or another, so there are many cases in which adhesions and inflammations have occurred in the region of the broad ligament and have passed off entirely unsuspected.

The names usually given to this disease—pelvic peritonitis and pelvic cellulitis—are too generic. Virchow styles the two factors *parametritis* (referring to cellular tissue), and *perimetritis* (referring to the peritoneum.)

But to return. We will suppose that some uterine operation has been performed, that a lady comes to your office with menorrhagia, for instance, that you very properly put a sponge tent into the mouth of the womb for the purpose of enlarging the cervical canal, (the use of a dilator is less hazardous,) that on the second day you introduce a curette and gently scrape out the granulations, that on the third day you are summoned in haste to see your patient who has been seized with a smart chill, with pain in the left iliac fossa, and find her with a pulse of 120, and a temperature of 103°. I can recall just such an instance as this to mind in my own experience. When I first saw the patient I found her with a temperature of 102¼°, with her knees drawn up and with a constant frown on her face caused by the agonizing pain. Whenever I touched the left iliac region the woman shrank, and to make the examination of the parts necessary I had to keep my finger on the part and maintain pressure. I discovered finally a hard tumor to the left of the womb.

The womb in its natural position floats like a ship at anchor, and just as the ship is frozen in during winter, so pelvic peritonitis and cellulitis bind down the womb, plasma is thrown out all around, changing the broad ligament into a board-like consistency, and securely fixing the womb. Sometimes, as in the present case, a hard body will be felt in the neighborhood of the womb. This is generally an agglutination of the intestines. Nature, you see, is always alive to an emergency, and prepared to protect herself. She sees an inflammation beginning near the womb, and all the tissues giving way before it. Immediately she sets to work to form a barrier to its progress. She sets up a process of agglutination between the intestines, causes them to become adherent to the margin of the pelvic peritoneum, and so prevents the inflammation from spreading.

How is the inflammation carried on from the womb to the adjacent tissues, you will ask me. It is not known whether the inflammation is phlegmonous or septicæmic. It may be either. If it be septic the inflammatory materials are absorbed and so transplanted. If the inflammation be frank the process of transplantation is by extension.

Passing the finger into the vagina, in cases of this disease, its walls are found to be hot and dry, while the cervix of the womb is immovable and tender to the touch. The roof of the vagina is hard and not flaccid; feels in fact as if plaster-of-Paris had been allowed to harden round the womb. When one is not expert in such matters it is very easy to be deceived into believing that the hard body felt above the vagina is a uterine fibroid, but more careful examination will show that the hardness is thin and not like that of a thick, large tumor.

Always make it a point to find out whether the womb is fixed or movable. If it is fixed, you may with propriety suspect the existence of pelvic peritonitis and cellulitis.

If you cannot abort the attack you must take up the treatment regularly, and the first two and most important indications are: (1), To stop the pain, and (2) to prevent the formation of pus. The medicines demanded are full doses of opium and bromide of potassium, together with from thirty to forty grains of quinia daily. In addition to this you should paint the abdomen with iodine and put on a poultice. Now some persons use as many as half a dozen poultices daily. The reason of this is that the poultices, being uncovered, dry up rapidly. If the poultice is covered with oiled silk, or greased brown paper, one poultice will remain soft for twenty-four hours. All this time you must be keeping your patient under the influence of large doses of quinia and morphia. Quinia contracts the capillaries, lessens the flow of blood to the womb, and also inhibits the migration and transformation of white corpuscles into pus cor-

puscles. If the woman be plethoric the morphia may be given by the mouth with neutral mixtures and wine of ipecac, or in some other fever mixture. In some cases tonics are demanded. Occasionally the application of belladonna and blue ointment locally is of benefit.

The disease ends either by resolution, or in the secretion of pus. When pus is formed the tumor usually becomes a little softer, and this condition of things is accompanied by chills, night-sweats, and hectic fever, although these symptoms cannot be regarded as in any way pathognomonic. In nine out of ten cases the end is by resolution. When pus is formed the condition immediately becomes troublesome.

If the sickness, therefore, lasts for more than a week, and the local tenderness increases, apply the hot water douche to the tender cervix. Then you will very often find that after a few days the pain and inflammation subside, but that there is still some fever in the afternoon. Now is the time to apply flying blisters. Begin with a good-sized one applied over the sore iliac region. In some cases this will be all that is required. When the pelvic tumor still remains, however, put another blister on over the womb and then another over the other side of the abdomen and then begin over again, so going the rounds and keeping the skin raw in spots until you have gained the resolution of the exudation. In some rebellious cases of pelvic peritonitis a hard tumor-like mass may exist for some time in the abdomen. I say pelvic peritonitis, because cellular tissue would not harden in this way, but would degenerate and fall into pus. When the cellulitis preponderates you are more likely to have pus formed, and instead of the chronic local hardness you have a chill and high pulse.

Very often the pulse will have fallen below 100 and the temperature will have almost reached the normal, when a sudden chill will supervene and the patient will complain of pain in the opposite iliac region. This is quite common as a sequel of abortion and in the puerperal state, but is rare after operations. When this metastasis occurs the only thing to do is to begin all over again with large doses of quinia and of morphia, give ten grains of quinia at a time, and, if necessary, from $\frac{1}{4}$ to $\frac{1}{3}$ of a grain of morphia hypodermically. This second attack will generally be found to be more manageable than the first.

When pus is formed, tonics are demanded, and among them iron. Never give iron, however, in the early stages of the disease, as it is only too liable to send the blood to the womb and so increase the already inflamed condition of that organ. Never keep the poultices on after the formation of pus has begun. Some authorities hold that poultices tend to the formation of pus.

It is in these later stages of the disease that

muriate of ammonia is a very excellent remedy; so, too, is aconite. I usually prescribe the following:

R. Mist. glycyrrhizæ comp., f 3 vj.
Ammonii chlorid., 3 ij.
Hydrarg. chloridi corrosivi. gr. j.

M. Tinct. aconiti radiceis., gtt. xxiv.

S.—A tablespoonful in water every six hours.

Suppose that you are convinced that pus has formed and that you are unable to secure its absorption by medicinal means. What do you do now? Examine the vagina and see if you can detect any soft point which fluctuates, or pits upon pressure. The most common site for the pointing of pus formed, as a result of pelvic cellulitis and peritonitis, is the vagina, the next most common site is the rectum. Of these two the vagina is the more desirable. Occasionally the pus empties into the bladder.

When the spot has been found where the abscess is beginning to point make an incision large enough to admit of a free drain of pus. Be as sure as you can be, however, before you cut an opening, that all the small abscesses, if such there be, have melted down to form one large one. If the abscess is very slow in pointing you will have a perfect right to search for the best point at which to introduce the aspirating needle. In this way you may empty as many separate collections of pus as you can find. After aspirating inject the cavities with dilute iodine—one part of iodine to nine parts of water; or you may use, instead, a five per cent. solution of carbolic acid. In some cases it is well to begin at first with a two per cent. solution.

When you find it necessary to aspirate the abscess through the vaginal walls, it is well to make but a small opening with the knife into the tissues, and then to pass a grooved director or a uterine dilator into the opening and enlarge it. In this way you will avoid the blood-vessels. After aspirating its contents keep the abscess open by inserting a drainage tube, or by making daily injections into it of disinfectant solutions, otherwise you will find that there is a tendency on the part of these abscesses to become chronic. Abscesses form in only about one case out of ten of pelvic peritonitis and cellulitis. Indeed, I myself have not had even so large a percentage as this.

On the other hand, if the result of the active inflammation be a hard tumor instead of an abscess, the inflammatory process may be relighted at every menstrual period, and I have seen several women waste away to mere shadows from this very cause. Therefore always endeavor to bring about resolution as soon as possible in these cases. Otherwise, and if the case become one of a chronic nature, the woman is likely to become sterile, a

false membrane being thrown out over the entrance of the oviducts.

(When speaking of the causes of pelvic peritonitis and cellulitis, I overlooked one very important cause of the condition, viz., gonorrhœa in the female. This disease is more likely to produce perimetritis than parametritis and sterility is very often brought on by it, and, as a consequence, of the changes occurring around the womb.)

When pus forms, the destruction of tissue is usually very great.

I remember being present at a *post mortem* examination made at Bellevue Hospital some twelve years ago, and I never saw such destruction of tissue as had been produced by the disease in that instance. It was utterly impossible to discover an ovary, or broad ligament, and we had to pass a sound up the vagina to discover the womb.

Sometimes abscesses are formed without the knowledge of the physician. If an abscess opens into the rectum, the result will be a collapse with sudden stools. If an abscess bursts into the bladder, the results are very serious, since the urine finds its way into the pus-containing cavity. The prognosis is also grave when an abscess opens into the small intestines. In some cases I have known the pus from an abscess to dissect its way into the tissues above the pubis and open in the groin.

GASTROTOMY FOR MALIGNANT STRICTURE OF THE ŒSOPHAGUS.

The following case is reported in the *British Medical Journal*:

A cachetic emaciated man, aged 55, had presented himself for relief at the out-patient department of St. Bartholomew's Hospital a month before the consultation. Mr. Langton then detected a dense obstruction just behind the cricoid cartilage, and a probang passed beyond the pharynx returned stained with blood. There was severe dysphagia; but the patient could swallow fluids with tolerable ease. At the date of the consultation, his condition had become much aggravated. It was with the greatest difficulty that he could swallow fluids, and any beef-tea, that he managed after painful efforts to get down his throat, soon returned. This indicated that dilatation probably existed above the seat of stricture. An induration could be detected to the right of the cricoid-cartilage, pushing outwards the sterno-mastoid muscle. The patient was rapidly losing flesh, and suffered from the constant pain in the epigastrium observed in cases of starvation.—Mr. Langton remarked that one of three methods of treatment might be reasonably proposed. The patient might be fed by a narrow tube passed beyond the stricture into the stomach.

Then, too, he might be fed by the rectum. Or gastrotomy might be performed under antiseptic spray, the peritoneum first being laid open, the stomach stitched on the abdominal wall, and opened a few days later. This appeared to be the only satisfactory way of averting the pangs of hunger for the rest of the patient's life.—Mr. Holden believed that the disease was situated lower down than the cricoid cartilage. He would first feed the patient by a narrow tube, and, when that became dangerous, he would perform gastrotomy in the manner recommended by Mr. Langton.—Mr. Savory considered the disease to be epithelioma at the junction of the pharynx with the œsophagus. He objected strongly to the passage of a tube through the diseased part, and feeding *per anum*, always unsatisfactory, would be necessary; but it would be best to perform gastrotomy.—Mr. Willett considered that gastrotomy was in this case quite justifiable; though it was but palliative, it would promote euthanasia. At present, the patient was in misery, and considerable risk might be incurred to relieve him from hunger.—Mr. Baker was in favor of feeding by a tube until much pain was produced; then the stomach might be opened.—Mr. Marsh thought that, although gastrotomy was one of the most fatal operations in surgery, this was a case where it was really necessary.—Mr. Langton, in conclusion, stated that he was very loth to feed by a tube or by enemata, and intended to recommend the unfortunate patient to submit to the operation of gastrotomy.

Result: On Monday, February 10th, Mr. Langton performed the first steps of the operation of gastrotomy. A vertical incision about two inches in length was made through the abdominal walls, corresponding to the segment of the left linea semi-lunaris immediately overlying the stomach. That organ was fixed to the edges of the wound by wire sutures, the wires on the right side passing through the substance of the edge of the rectus. Mr. Langton considered that there would be less inversion of the margin of the wound than if he had not included muscular tissue in the suture; nor did he fear that the transfixion of the muscle would produce any ill effects. The operation was performed under carbolic spray. The patient was fed with essence of beef, brandy, etc., *per anum* till Wednesday, February 19th, when Mr. Langton opened the stomach and introduced a vulcanite tube, through which greenish bile immediately escaped. The patient's temperature, which was 94 deg. before the operation, rose to 96 deg. in the evening. On the next day, the patient retained most of the nourishment introduced through the tube under the superintendence of the house-surgeon, Mr. Bruce Clarke. Though greatly emaciated, the poor sufferer appeared to be somewhat the better for the operation; but he gradually

became more and more feeble, and expired at 3 A.M., on February 22nd. On *post mortem* examination, the primary disease was found to be cancer of the mediastinal glands, compressing the œsophagus. There were secondary deposits in the lungs, and slight constriction of the œsophagus close to the stomach, which was held in apposition to the wound by the sutures alone, no plastic lymph having been effused.

[Another case is reported in the *LANCET*, April 5th, under the care of Mr. McCarthy, at the London Hospital, for impermeable stricture of the œsophagus. The operation was performed with great care and under antiseptic precautions. The patient seemed for the first few days after the operation to be doing very well, but died suddenly on the 5th day. At the *post mortem* basal pleurisy was discovered on both sides; the œsophagus was completely closed by malignant disease, and the lesser curvature of the stomach was infiltrated with carcinoma.—ED. *LANCET*.]

NOTE ON THE TREATMENT OF DIPHTHERIA.

Dr. Joyce (*British Med. Journal*) says:—I have treated my last eight cases successfully by the local application of sulphurous acid spray. Of course, I cannot say I cured them; but I have not had a previous series of eight cases without a death. I teach the nurse how to work the spray-producer, and direct it to be used every three or four hours, and I apply it thoroughly myself at least twice a day. Internally, I have given heroic doses of the liquor ferri perchloridi, and a supporting diet. I am induced to send this note by the perusal of Dr. A. Carpenter's paper "On the Possibility of an undue quantity of Carbonic Dioxide being a predisposing Cause," and by his suggesting sulphurous acid as an appropriate remedy; also, because, in the leader of the journal on "The Treatment of Diphtheria," it is omitted from the list of spray medicaments. There is also another agent, I think, which should be tried, with the view of limiting the outpouring of the albuminous exudation on the tonsils and fauces, viz., electricity applied to the back of the neck. It has seemed to me that the stress of the poison, whatever may be its nature, falls on the great cervical ganglia of the sympathetic; certainly the local manifestation, *i. e.*, the exudation, chiefly forms in the parts in nervous relation with them, and it is possible their stimulation might control it. As bearing on this point, I remember a paper "On a Case of Diphtheria" being read at one of the Branch meetings, I think by Dr. Kirby, in which

consecutive paralysis and albuminuria existed, and in which it was found that the amount of albumen in the urine was distinctly controlled by electricity applied to the back of the neck. There must surely be some agent, capable of being locally applied, either by spray or inhalation, that would prevent the exudation from solidifying. Then one rock at least, on which life is frequently wrecked, would be eliminated from the case.

THE PHILOSOPHY OF POULTICES.

Dr. Lauder Brunton, in the *Popular Science Monthly* for March, speaking of the philosophy of poultices, says:—

"The effect of poultices is probably different from that of blisters, although ultimately productive of similar relief; for, if we again take the simple instance of a finger inflamed in consequence of a thorn having run into it, we find that we can relieve the pain in two ways, either by putting the hand into cold water or by plunging the finger into a warm poultice. Both of these measures, apparently so dissimilar, will produce a like result in regard to the inflamed point; that is, both will lessen the pressure of blood in the vessels where stasis has already taken place. The cold, applied to the whole of the hand, will cause the arteries leading to the finger to contract, and will thus diminish the supply of blood to the inflamed part, and lessen the pressure in the blocked capillaries. The warm poultice will also lessen the pressure, not by diminishing the flow of blood to the part, but by dilating the vessels around the point of stasis, and affording the blood a ready exit into the veins. In the case of internal organs, the blister applied to the skin probably acts like the cold applied to the finger, while the warm poultice placed upon the surface of the thorax or abdomen affects the deeper lying organs in the same way as it does the superficial ones, the warmth penetrating through the thin thoracic or abdominal parietes. On this account, when we wish to relieve pain in the chest or abdomen, we ought to make our poultices in a particular way. The common practice of mixing the linseed meal with hot water, and applying it directly to the skin, is quite wrong, because if we do not wish to burn the patient we must wait until a great portion of the heat has been lost. The proper method is to take a flannel bag (the size of the poultice required), to fill this with the linseed poultice as hot as it can possibly be made, and to put between this and the skin a second piece of flannel, so that there shall be at least two thicknesses of flannel between the skin and the poultice itself. Above the poultice should be placed more flannel, or a piece of cotton-wool, to prevent it from getting cold. By this method, we are able to apply

the linseed-meal boiling hot without burning the patient, and the heat, gradually diffusing through the flannel, affords a grateful sense of relief which can not be obtained by other means. There are few ways in which such marked relief is given to abdominal pain as by the application of a poultice in this manner."

ABORTION: HÆMORRHAGE: INJECTION OF PERCHLORIDE OF IRON.

Dr. Angus reports the following case in the *British Med. Journal*, March 22, 1879: On New Year's afternoon last, I received a hasty summons to attend a lady, residing within three minutes' walk of my house. She had been carried from the dinner-table (where a large party were assembled) to her bedroom, and upon my arrival, I found her reclining on two chairs in a very nervous condition. I ascertained that she was forty years old, the mother of eight children, all living, the youngest five years of age; she had had no miscarriage prior to my attendance. She had seen nothing for about three months, till a slight discharge began, which had been going on for a week. Not being aware she was pregnant, it was attributed to "change of life"; but, as sharp pain came on suddenly, and she felt something passing from the vagina, removal to her bedroom became necessary. I had her placed in bed and her clothes taken off. On examining the petticoats, I found a considerable quantity of clotty blood, in the midst of which was a foetus about the twelfth week, and a placenta. A firm compress and binder were immediately applied, and a drachm of liquid extract of ergot, with half a drachm of aromatic spirits of ammonia, given, and ordered to be repeated every two hours if the discharge continued at all profuse. Within an hour of leaving her, I received a message that the loss appeared very great. I immediately returned, when my patient was in a most unsatisfactory state: throwing her arms about, sighing, almost pulseless at the wrist; there was great hæmorrhage, with complete inertia of uterus. I plugged the vagina immediately with five soft linen handkerchiefs, wet in equal parts of vinegar and ice-cold water, and administered another dose of ergot and ammonia. A practical nurse was at once obtained; and brandy, beef-tea, milk, and white of egg beat up in it, were frequently given. On leaving at 11 P. M., she had rallied considerably, the vaginal plug having entirely prevented external loss. About half-past 2 A. M., I was again summoned, and was informed that vomiting had commenced an hour before, which expelled the plug; that the bleeding was very profuse; and that they thought her dying. I certainly was startled at her condition; she was completely pulseless

at the wrist, and the action of the heart was barely perceptible on placing the ear over it. A solution was at once made of one part of strong solution of perchloride of iron, with four parts of cold water, and, after carefully filling a Higginson's syringe, all air being excluded, I passed the vaginal-tube well up into the uterus, slowly injecting about six ounces. Immediate contraction took place and all discharge ceased. For several hours, it was doubtful whether she could rally; but the assiduous attention of the nurse in carrying out everything as ordered, and her admirable method of getting frequent small doses of nutrition administered, was rewarded with success; for slowly but surely improvement took place. Eighteen hours after the iron injection, I gently washed the uterus out with a pint of tepid water, to which was added one tablespoonful of Cond's fluid, and repeated it night and morning for fourteen days. Some amount of febrile disturbance commenced on the third day, the highest degree of temperature being on the fifth day, when it rose to 103.6 deg. Fahr.; after which it steadily fell. Between the third and fourth week, considerable tenderness of the left femoral vein began, and threatened an attack of phlegmasia dolens; but, raising the leg to the horizontal position, frequent hot applications, wrapping the whole limb in cotton-wool, doses of calomel and Dover's powder at bedtime, with a purge next morning, had the effect of beating back what would otherwise have been a troublesome complication. Menstruation commenced on Jan. 27th, and a thin scanty discharge went on for three days. She is now (February 15th) going about again.

PRESENT YOUR BILLS.

The *Louisville Medical Journal* says: "The doctors are almost alone in the custom of giving long credits, and they should get out of it, in justice to themselves and to their patients. Many a bill is lost because it was not presented promptly. It is painful for any one to pay for a thing which is well-nigh forgotten; and besides, when an account runs a long time it may have grown to such an extent as to put it beyond the ability of the debtor to discharge it, while in broken doses it might have been easily managed. There has been no better time than the present to make a change in these matters. The necessities of the times have educated the people to expect frequent settlements of their indebtedness, and the general shrinkage of professional incomes makes it desirable for even the greater practitioners to get quick returns for their work; so concert of action can be confidently expected. Cash payments for services rendered would be the pleasantest of all plans, but it is not always practicable. Monthly statements, however,

should be rendered; and certainly the demand should be made for money on quarter-day. We trust that with the beginning of April there will be a grand presentation of professional bills for work done since January (and we fear in too many instances for work done before that time), and the people be made to understand that settlement is expected. It is all nonsense to be "mealy-mouthed" about matters of this sort. No patient whose patronage is worth having can take offence at the doctor for taking care of himself and family. When tailors and milliners and butchers and bakers and candlestick-makers (or, in more modern English, the "gas companies") and landlords and carriage makers and horse-feeders, in fact all the gentry who supply the doctor with his inexpensive living, adopt the plan of mentioning their little affairs against him semi-occasionally, then can the doctor afford to do likewise with his clientele. In the meanwhile we advise him to follow the fashion of the times, and collect his dues promptly; and when he does, may we mildly request that as printers and publishers are among those who expect to be paid now and then, he will assist us in this matter to the extent of any little amount he may owe upon the subscription to this journal.

SURGICAL TREATMENT OF ANASARCA.

Dr. Wickers, (*London Lancet*) says: the treatment of anasarca, whether cardiac or renal in its origin, after ordinary therapeutic measures, such as diuretics, purgatives, &c., have failed, is, in many instances, very unsatisfactory. If the patient be let alone he rapidly gets waterlogged and dies; incisions or punctures nearly always lead to sloughing, while other plans of treatment have proved less unsuccessful.

The following method has been in use at Charing-cross Hospital for some months; it has been found to increase the patient's comfort considerably, while in no instance has it been followed by ulceration, sloughing, or cutaneous inflammation; it appears, indeed, to substitute a perfectly safe means of getting rid of the fluid for those which have hitherto been attended by much risk.

The legs having been well oiled, and a Macintosh sheet placed under them, about twenty or thirty punctures are rapidly made in their sides with a stout straight needle or hare-lip pin, care being taken that the needle is passed deeply into the subcutaneous cellular tissue. Some sponges which have been well wrung out in a solution of salicylic acid are now placed against the punctures, so as to absorb the dropsical fluid as it transudes; these sponges as they become saturated are squeezed out, and again passed through a solution of salicylic acid before being replaced against the patient's skin. In this manner renewals may be required every two or

three hours, and several pints of fluid may be drained away during the first twenty-four hours, the whole process being possibly completed in four or five days, at the end of which time the punctures are usually healed.

By the use of salicylic acid in the manner described, decomposition of the transuded fluid is obviated, the sponges are kept free from fetor, the skin is not irritated, and cutaneous inflammations of a low type, with their attendant evils, are entirely prevented.

REGISTRATION OF COLONIAL AND FOREIGN DIPLOMAS.

Dr. Quain proposed the following memorandum on the registration of colonial subjects or foreigners:—

"That, with the consent and approval of the General Medical Council, any of the medical authorities may confer, without examination, on a colonial subject or on a foreigner, a degree, diploma, or license entitling him to be registered, provided that the medical authority has received such evidence as to character, professional education, and examination as would be deemed sufficient as a qualification for the like degree, diploma, or license in the case of a person not a colonial subject or a foreigner. There shall be a right of appeal to the Medical Council if no medical authority consent to admit such colonial subject or foreigner."

His suggestion was, that foreigners or colonial subjects wishing to practice in this country should apply to one of the institutions, which would investigate their character, education, and examination, in such a way as to justify them in giving a diploma and that it should not be open to an institution to do that carelessly or indifferently, but each case should be submitted to the approval of the Medical Council, and, therefore, the admission of foreigners as practitioners in this country would be subjected to the double ordeal of the authorities admitting them and of the Medical Council.

Dr. Pettigrew seconded the resolution.

Mr. Turner said, in the table of amendments to be moved in Committee by the Lord President, there were evidently important amendments on these very clauses referred to by Dr. Quain—Clauses 6 and 7; and, as the Council had not yet had time to consider the full import of those amendments, it might be as well if time were allowed for such consideration.

At the request of the President, Mr. Turner read Clause 7 as it was proposed to be amended.

Dr. Quain: Do I understand that by this clause the holder of a foreign diploma placed on the separate *Register* has all the privileges of an English registered practitioner?

Mr. Turner : Yes.

Sir William Gull said all this had been gone into by the Council last year.

Dr. Andrew Wood said he had always been struck with the too great facility given to foreign and colonial practitioners for being introduced into this country on so much easier terms than their own people; and even since the last meeting of the Council, this foreign affair had become more complicated. They might have people coming from France, Germany, or from some of the other great schools, and it could be no great hardship for a foreigner, on coming here, to get a stamp put upon him. He ought not to be made to pay any considerable fee—that would be a hardship; but there could be no possible objection to his being obliged to submit himself to the consideration of one of the medical authorities, who would not necessarily be required to examine him, and should not be entitled to take any great fee, but still who could make sure that they were not admitting upon the *Register* on easy terms men who had no title to be put on it.

Mr. Simon said this proposal was foreign to the business of the Committee as a matter of form, though he had no wish to hamper the proceedings with such a technical objection. What he wished to insist upon was this, that the Council had already delivered their opinion upon the point. In 1877, the question of these qualifications was referred to a committee; that committee had reported, and their report was accepted by the Council. That report laid down a particular policy with regard to foreign and colonial diplomas, and the report was communicated to the Government. Last year, the whole subject was reconsidered, some of the members of the Council, as he suspected, forgetting what had passed in the previous year. The result of that discussion was the following recommendation (clause 7) :

“That where a person who had been *bona fide* resident in the British possessions showed that he had a good character, and had a recognised diploma, or diplomas granted in British possessions, he should, upon payment of the registration fee, be entitled without examination to be registered as a colonial practitioner on the *Medical Register*.”

On that recommendation the Government had proceeded; and now, when the case came back to them, were they to upset the whole thing, and to go into an entirely new line of advice—a line of advice that was to base this jurisdiction in the medical authorities instead of in the Medical Council, making the Medical Council the court of appeal instead of making, as the last resort, the Privy Council the court of appeal? Apart from all other objections, the Government would not for a moment entertain the notion of making the

Council a final court of appeal in a matter of that kind. At the time of Lord Ripon's Bill, there was a difference of opinion; the Council then was not as liberal as the Council was now, and the Government refused to pass clauses that did not give an appeal against anything like factious exclusion to the central government. He hoped Dr. Quain would withdraw his proposal.

Dr. Aquilla Smith did not take the view that, because this matter had been discussed by the Council, they were not to discuss it again. He believed that the proposed amendments were quite sufficient to warrant them in reopening the question. One of the most important points connected with the admission of foreign and colonial degrees was, that the Council should take care that reciprocity should be granted with regard to English diplomas in the countries and colonies with regard to which they proposed to take this step. They should be very careful to see that means were taken to establish such reciprocity with the corporations whose diplomas were to be accepted.

Sir William Gull did not wish to see the Council stultifying itself by going back upon its former conclusions. His friend Dr. Wood seemed very much affected at the idea that a man might come from a bogus university or corporation abroad. The ninth clause of the Act stated—“The medical diploma or diplomas granted in a British possession or in a foreign country, which are to be deemed such recognised medical diploma or diplomas as are required for the purposes of this Act, shall be such medical diploma or diplomas as may be recognised for the time being by the General Medical Council.” That fully provided for the emergency.

Mr. Turner thought that Dr. Quain's motion had met with a little more severe criticism than it deserved. They were not advising the Government not to register foreign and colonial practitioners; they were not in the least degree departing from the liberal policy laid down by the Council in the previous years. They were simply suggesting to the Government that there might be another way of getting these people on the *Register*, and of associating them in one of the existing medical authorities of the country.

The resolution was put and carried, by a majority of 12 to 7. The Council however subsequently rescinded it when the report was brought up, so that the clause stands as passed in 1877.—*British Med. Jour.*, March 22, '79.

A letter was read from Mr. E. H. Baldwin of Toronto calling attention to a Bill introduced to amend the Ontario Medical Act, in which it was proposed that in cases where it was proposed that in cases where British practitioners sought registration in Ontario a fee of 400 dollars should be charged. It was moved by Mr. Simon seconded by Dr. Rolleston, and agreed to.

“That the President be requested to bring Mr.

Baldwin's letter under notice of the Colonial officer as alleging an endeavour to introduce into the Colony a system of differential registration fees to the disadvantage of legally qualified practitioners from the mother country."

LATERAL SCLEROSIS OF THE SPINAL CORD.—

Dr. J. Althaus (*Brit. Med. Jour.*, Nov. 9, '78) gives an excellent account of this affection, from which we extract the following:—The affection begins in the posterior portion of the lateral columns, called the crossed pyramidal column, composed of fibres derived from the opposite cerebral hemisphere. In this disease this column is found studded with wedge-shaped grey patches reaching anteriorly as far as the lateral column proper, exteriorly as far as the lateral column proper, and interiorly as far as the posterior cornua. True paralysis with muscular spasms and rigidity are characteristic symptoms of this disease. These are directly referable to the fact that all voluntary movements must pass through the diseased columns in their passage from the brain to the muscles. At first the loss of power is slight. The patient feels weak in the legs and has a difficulty in going up and down stairs; after walking a short distance he is greatly fatigued. There is great difficulty in lifting the feet from the ground; they are apt to shuffle along it, and thus to wear out the soles of the shoes first at the toes. Soon the patient takes to sticks or crutches. Coincident with this loss of power we have motor irritation, shown by twitches, cramps and convulsions, which are apt to occur after fatigue, but often come on without any apparent exciting cause and with considerable regularity. After a time the muscles assume a degree of rigidity which renders voluntary movements more difficult and offers resistance to passive movements. The legs resist flexion, extension and abduction; they ultimately become fixed in extension and abduction, and the foot assumes the position of varo-equinus. In walking the patient seems, as it were, fixed in a vice. He has no difficulty in standing, but the legs seem so stiff that he is almost unable to get the feet from the ground; he walks on tiptoe; the whole body seems to join in the spasmodic effort and is thrown forward in order to aid the action of the legs. The tendon reflex symptom of Erb is greatly increased. Thus if the patient affected by lateral sclerosis stamp upon the floor with his foot the whole limb is thrown into a state of tremor which may last for hours. This increase of tendinous reflexion is due to the cessation of arrival of inhibitory influence from the brain in the muscles from interrupted connection. The mode of development of this disease is, as a rule, extremely chronic, extending over years or decades. It usually begins in the lumbar enlargement of the

cord. Its progress is by fits and starts. In a variable time it extends upwards to the cervical enlargement. Generally before the medulla is reached the patient dies of some other disease. The chief cause of this disease is taking cold. It occurs between the ages of thirty-five and fifty. The prognosis is in a general way unfavorable. Generally we must be satisfied to arrest the disease. The prognosis will vary with the ability or disposition of the patient to adopt the mode of life most conducive to recovery. In treatment we must have rest and use ergot and nitrate of silver, and other remedies as the general state of the patient calls for them.

SPINAL IRRITATION.—Dr. Beard, in the *Virginia Medical Monthly* says:—Of the many affections allied to hysteria, spinal irritation is one of the most prominent, and is often associated with it. When it is simply a lesser symptom of hysteria or nervous exhaustion, it cannot claim a distinct nomenclature, and does not call for special consideration in treatment. When, however, the spinal tenderness and the symptoms that directly flow from it overshadow other accompanying conditions, it claims a place as a distinct disease, and should be treated accordingly. Spinal galvanization, with labile currents in a descending direction, rarely fails to effect a cure. Indeed, there is hardly a disease in which there is so little doubt as to the treatment indicated, and the probable benefit to be derived.

Case V.—Miss———was sent to me by Drs. A. E. M. Purdy and F. P. Kinnicutt, of New York, and also by Dr. P. C. Barker, of Morristown, N. J. This young lady was of an exceedingly delicate and sensitive organization, and for a number of years had suffered from spinal irritation, with various accompanying symptoms. The tenderness along the spine was almost continuous, and firm pressure in several special areas caused great pain. The patient complained of palpitation and *breathlessness*, weakness with low spirits and other distressing symptoms which she described as "sinking" feelings—an expression which is sufficiently suggestive to those who have had much experience in this class of cases. There was occasional nausea, with flatulence and loss of appetite, together with sharp neuralgic pains. Very slight exertion caused utter exhaustion. Treatment by the method mentioned above was immediately begun, and with some variation continued for three months. This variation consisted in alternating, just so soon as there began to be a decided diminution of the spinal tenderness, general faradization with spinal galvanization. Improvement steadily continued, and she is now enjoying as vigorous a degree of health as at any previous time of her life.

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TORONTO, MAY 1, 1879.

EQUALIZED REPRESENTATION IN THE ONTARIO MEDICAL COUNCIL.

Now that the representation of the Eclectic members of the Medical Council has lapsed by the efflux of time, viz., five years from the passing of the Consolidated Medical Act, assented to March 24th, 1874, it is in order once more to discuss the propriety of increased representation of the general profession on the Council Board. As matters stand at present there are 8 representatives of colleges on the Council, 5 homœopaths, and 12 members of the general profession. About one-third of the members of the Council are representatives of Colleges, one-fifth represent about 50 homœopathic practitioners, and the remaining 12 represent about 1700 general practitioners. Surely no one looking at those figures, but will admit that the representation is very unequally divided.

We will not allude to what has been done on more than one occasion, by the combination of the school-men with the homœopaths and eclectics. Our object is simply to deal with the question of increased representation on its own merits. We are anxious to have the general medical profession more in sympathy with the Council, and we see no better way than to give it a larger share of representation. The territorial divisions, which are the same as the old electoral divisions for representatives on the Senate, are in some instances excessively large, embracing two or three counties, and it is impossible for representatives to represent satisfactorily such large constituencies. There should at least be two members for each division, elected conjointly, or each elected to represent one half of the constituency. The period of time for which each member is elected should also be shortened

from five to three years. This would bring candidates more frequently before their constituents, and be the means of infusing more life and activity into the council and create a deeper interest in its proceedings. The action of the representatives should be more closely watched, and the interest of the profession more carefully looked after.

The only objection that can be successfully urged against increased representation is the increased expense, which would be incurred. The same parties however who urge this objection most strongly are themselves spending hundreds of dollars every year in lawyer's fees, sundry meetings of the executive committee, trips to Ottawa and such like, which might be saved by the exercise of a little more caution and economy on the part of the council board. The question of increased expense, however, is not so great an objection as at first sight might appear. The five representatives of the eclectic body having ceased, there would in reality be only *seven* new members added to the number lately constituting the board. Even this number is small when compared with the Board of Governors, consisting of forty members, of the sister institution in Quebec which has a much smaller medical population. The mere matter of a trifling additional expense, however, should not be allowed to prevent the carrying out of a policy which is certain to be for the best interests of both the profession and the council. It must also be remembered that the profession contributes, either directly or indirectly the greater portion of the funds of the council and should on that account have a larger voice in its expenditure. We have no doubt the proposition to increase the territorial representation will be strenuously opposed in some quarters, but that is no reason why, if the principle be correct, it should not ultimately prevail. The equalization of the representation of the different bodies on the medical council may be accomplished in either of two ways, viz. by increasing the number of territorial representatives as we have proposed, or by diminishing the number of University and homœopathic representatives on the present board. The number of homœopathic representatives is out of all proportion to the number of practitioners of that school in the province, and the representatives of those Universities having no medical department might be left off altogether. Three members would be quite sufficient to re-

present the homœopathic body, one member from each of the three teaching bodies and 12 territorial representatives would place the representation on a much more equitable basis than at present; but we have grave doubts whether this plan will after all commend itself to those who object to increased territorial representation on the score of increased expense. We are prepared to open our columns to a discussion of the subject.

MORTALITY FROM SMALL-POX.

The following statistics of mortality from small pox, which we have derived from an interesting and elaborate article, in the *Revista Medico-Quirurgica* of Buenos Aires, by the editor, Dr. E. Coni, may be worthy of perusal by all who appreciate this sort of information.

In Vienna, with a population of 670,183, there were 7,821 deaths in 10 years (65 to 74), or an annual average of 782; Prague, with a population of 165,526, there were 1489 deaths in 10 years (65 to 74), or an annual average of 150; Trieste, with a population of 123,498, there were 1203 deaths in 10 years, (65 to 74), or an annual average of 909; Munich, with a population of 193,326, there were 290 deaths in 7 years (68 to 74); Turin, with a population of 212,644, there were 631 deaths in 10 years (66 to 75); Venice, with a population of 129,676, there were 783 deaths in 10 years (66 to 75); New Orleans, with a population of 203,439, there were 2184 deaths in 9 years (67 to 75); Boston, with a population of 250,526 there were 1088 deaths in 9 years (64 to 71); Saint Louis, with a population of 450,900, there were 4141 deaths in 9 years (67 to 75); Stockholm, with a population of 150,446, there were 904 deaths in 10 years (64 to 73); Christiana, with a population of 75,042, there were 23 deaths in 10 years (64 to 73); Berlin, with a population of 968,634, there were 6915 deaths in 5 years (69 to 73); Breslau, with a population of 234,396, there were 1717 deaths in 10 years (66 to 75); Paris, with a population of 1,851,792, there were 3844 deaths in 6 years (69 to 75); London, with a population of 3,489,428, there were 10,784 deaths in 4 years (70 to 73), or an annual average of 2696.

It is, perhaps, unnecessary to apprise our readers that in judging of the proportional

mortality from small pox in the above named places, comparison of the annual number of deaths with that of the entire population is to be made. The following figures show the proportion of deaths, (not, be it observed, of cases), to the whole population in 8 of the principal cities,

Paris, 1 death to every 2892 of the population
Boston, 1 death to every 2087; Breslau, 1 death to every 1351; London, 1 death to every 1294
St. Louis, 1 death to every 980; Vienna, 1 death to every 851; New Orleans, 1 death to every 840; Berlin, 1 death to every 700.

If the statistics are correct, it would appear that Paris has suffered a less proportional mortality than any of the other seven towns above given, whilst London shows a rate considerably more than double of that of Paris.

Were the small pox mortality of the City of Montreal before us, we are pretty sure that it would not fall short of the worst in the catalogue, if indeed it would not be much in excess.

THE RESTORATIVE POWER OF MUSIC.

"Through every pulse the music stole
And held sublime communion with the soul;
Wrung from the coyest breast the imprisoned sigh,
And kindled rapture in the coldest eye."

It has been tersely said that one half the ills of the race are closely allied to, or in reality are disorders of the mind. Until very recently the intimate relation between, and the powerful influence exerted by the mind over the body was but dimly realized. Modern medicine, however, gives to the mind its due share of credit in estimating the causation of disease. In this fast age the overstrained mind is apt to give way in some degree, if not altogether, and impaired mental or physical phenomena are the result. In dealing with such derangements, the physician is often obliged to forego medicines, and adopt other agents that will soothe and tranquilize the nervous system, favor rest and repose, and aid nature in restoring her disturbed forces to their equilibrium. Beside medicine, there is none so successful as pleasing associations, and among these none more potent than the mysterious influence of good music. But as music can exercise every kind of influence, mirthful, melancholic, martial, exciting, or soothing, fascinating, subduing, tranquilizing; therefore it is

needful that discretion should be used in the kind of musical influence to be brought into action.

That music exerts a magic influence over human beings, all history attests. The power of music to sway with varying emotion the human soul, was recognized among the ancients. The servants of Saul recommended music to their master, to cure his mental malady or evil spirit which it was supposed had come upon him. David took a harp and played with his hand, so Saul was refreshed, and was well, and the evil spirit departed from him. And Shakespeare seems to have anticipated the wonderful skill of the Indian Jugglers in their snake charming feats, and the wild beast and horsetamers in their application of music as an aid to their endeavours, when he writes thus :

“ . . . Orpheus' lute was strung with poets' sinews ;
Whose golden touch could soften steel and stones,
Make tigers tame, and huge leviathans
Forsake unsounded deeps, to dance on sands.”

Music can rouse the love of country, and stir the patriot to wondrous deeds of valour ; it can awaken the softest emotions of the soul ; inspire love, or lift it in fondest aspirations after the Divinity, up from the sordid and the earthly and bring its fancy to flights which stay not until they reach beyond sublimity to the Divine. It can hide the sorrowing hope, and chase away the melancholy that sits brooding over the spirits of disappointed men. It can arrest the ravings of the madman, and by its magic power awaken memories of bygone days ; recall reason, and seat her for a brief space upon her long deserted throne. The restorative powers of music upon the invalid are so well known, that special proof in this enlightened age is quite unnecessary ; no argument in its behalf is needed ; it is its own vindicator. Its power to cheer the spirit, revive the soul, and rouse the mind from its depressing passions, and to put it into a cheerful mood have been demonstrated times without number.

It is a medicine for the soul, and possesses a therapeutic power that no drug has ever had claimed for it. It awakens new hope, and, owing to the close intimacy of mind and body, acting and reacting as they do upon each other, imparts a wonderfully exhilarating and restorative influence to the flagging powers of nature ; while in every disease accompanied with or characterised by

disturbance of the nervous system, its soothing influence and recuperating power is little less than marvellous. Music should be in every house, should be indulged in by every family, by every individual ; especially is it a boon to the sick, the aged, and the infirm, for

—“ Music exalts each joy, allays each grief,
Expels disease, softens every pain ;
Subdues the rage of poison, and the plague,
And hence the wise of ancient days adored,
One power of physic,—melody and song.”

Some people seem to be afraid of music in a sick room, but if it be of the gentle, melodious strain it can do only good. Thanks to the enlightened spirit which in these days prevails over our Insane Asylums, music is regularly furnished one a week (an innovation, which to his infinite credit be it said, owes its origin to the benevolent hearted Jos. Workman, M.D., ex-superintendent of our Provincial Asylum), for the benefit of the inmates and with salutary effect—for what can minister to a mind diseased like music ? We know of nothing. While thankful for this boon, we wish, however, to plead for the sick, who we would be glad to see enjoying its benefits, by having it introduced into our Hospitals. The kind of patients to submit to its influence and the frequency of its ministration, should be matters of detail to be judged of by the surgeon in charge.

It has been said of Beethoven that on one occasion when dangerously ill, and all hope seeming to have fled, a friend suggested music, and at first employed a person to sing soft strains in an adjoining room. The beneficial effect upon the patient being quite appreciable, instruments were provided, and finally, as he grew better an orchestra was employed to discourse some of his own magic compositions. The result was a complete success, and music accomplished what medicine had utterly failed to do.

The meaning of song goes deep, and there are few that can in logical phrase express the effect it has upon them. Let music be generally introduced into our Hospitals and sick chambers, and instead of pianos being carefully closed, if used judiciously physicians would be much aided in their work, and relieved of a great deal of anxiety by this cheerful assistant, while the very atmosphere of of Hospitals would become stripped of much of that dreary melancholy sadness, which, do what

you will with flowers and papers, seems to hang like a chilling pall around them.

We close with Dryden's beautiful stanza, expressive of the power of music—trusting that a word fitly spoken may prove, "like apples of gold in pictures of silver."

We have, most of us listened—as the gods are here described as doing—at some period or other of our existence to the enchanting strain of music with like rapture and agreeable astonishment.

"When Jubal struck the chorded shell,
His listening brethren thronged around,
And, wondering, on their faces fell,
To worship that celestial sound.
Less than a god, they thought, there could not dwell,
Within the hollow of that shell,
That sung so sweetly and so well!"

TORONTO UNIVERSITY ELECTIONS.

Our contemporary in this city, the Toronto School of Medicine "organ," in an article in the May issue, and intended as a leader, says in regard to the elections to the Senate of Toronto University which take place on the 8th inst. :—"We shall be glad to see Prof. Loudon and Dr. Thorburn re-elected, and we hope that Dr. Graham may be successful;" in other words, the "organ" desires the election of the two medical men of its own school. "There needs no ghost to tell us this." It is quite characteristic and perfectly in keeping with the various stratagems and devices of the members of this school. They cannot brook fair competition, but are continually endeavoring to form rings and obtain monopolies. The question with the graduates, however, should be, and no doubt will be, which of the candidates seeking election will best serve the interests of the University? Neither the graduates nor the University can have any interest in giving to the Toronto-School of Medicine a *sixth* representative on the Senate. The faculty of this school has completely repudiated its former advocacy of single affiliations by taking the earliest opportunity of *affiliating with Victoria College*. It has therefore less claim than ever to increased representation. Should the nominees of this school be successful in their candidature, there will be the very unusual and somewhat anomalous spectacle of six members of a body in close affiliation with a rival University, sitting and voting in the Senate

of Toronto University. We ask in all sincerity is this desirable? Is it becoming?

The "organ" is very much exercised about a circular which was issued, dated April 16th, 1879, a copy of which we also received, recommending the candidature of Prof. Loudon, Wm. Houston, and Dr. Jas. H. Burns, and signed "Graduates of Toronto University." This circular placed the issue fairly before the graduates, and the authors are to be congratulated upon the fact that there was not a single statement in it which could be refuted. Not even the "organ" with its green-eyed goggles could discover a solitary flaw, and so it sets to work to abuse the authors (plaintiff's attorneys) in the following choice language: "Their only claim to be heard is that they are such (graduates);" "their names are unworthy to be associated with the title;" "the old animus is again apparent;" "discreditable to its authors;" "undutiful sons of *alma mater*;" "they will appear supremely ridiculous;" "unscrupulous partizans;" &c., &c.

It is a great pity that there should be any squabbles over these elections. It all arises, however, from the insatiable greed of office, of members of the above mentioned school, and their persistent attempts to get control, if possible, of the national University and the sooner some remedy is applied to this unsatisfactory state of affairs the better.

RECIPROCITY IN MEDICAL REGISTRATION.

In another column will be found extracts from the minutes and proceedings of the British Medical Council, in regard to the matter of reciprocal registration between Great Britain and the Colonies. An additional amendment was proposed by Dr. Quain to be introduced into the bill now before the House of Commons, but which, for obvious reasons, was subsequently rescinded. It proposed that any of the medical authorities might confer, *without examination*, on a colonial subject, a degree, diploma or license, on payment of a nominal fee, entitling him to be registered in Great Britain, provided that the medical authority had received satisfactory evidence of character, education, and examination in a recognized colonial university or licensing board, and should any medical corporation refuse to give him a diploma, he still had the right of appeal to the Medical Council.

This liberal, dignified and professional-like action on the part of the British Medical Council is in striking contrast with the course pursued by certain members of the Ontario Medical Council, whose actions we have had occasion to criticise so severely of late. We think it might well be considered an honor to have the diploma of the college of Physicians and Surgeons of Ontario recognized by the medical authorities and Medical Council of Great Britain. But a few of the very wise and learned members of the council seem to think otherwise, and are bent upon pursuing a course which they will find sooner or later very much to their detriment. At present their is an evident (and proper) intention on the part of the British Medical Council not to admit any colonial practitioners to registration who are not licensed to practice in their own country. If, however, our Ontario Council arrogates to itself, as certain of its members seem disposed, an air of superiority, and refuses to reciprocate, it will then be in order for the British Medical Council to receive the diplomas of recognized universities, such as Toronto University or the University of Trinity College, whose educational requirements are at least equal to those of any other university or licensing board, either at home or abroad.

COUNCIL ORAL EXAMINATIONS.

The oral examinations of the Ontario Medical Council which commenced on the 29th ult. are not concluded as we go to press. We delayed publication for a day or two in the hope that we might be able to announce the names of the successful candidates. The examiners were obliged on the second day to adjourn in consequence of the threatening attitude of a few of the more reckless students. They broke some of the windows, tore down the banister of the stairway, and kept up such a commotion that it was impossible to get along with the examination. The conduct of some of them was simply shameful, and [an example should be made of certain of the ringleaders with a view to prevent similar occurrences in future.

This difficulty with the students is becoming chronic, and requires to be dealt with in some way. It is a matter for serious consideration, whether it

is necessary or expedient to continue the oral examinations. This style of examination is after all only a relic of antiquity, and the sooner it is dispensed with the better. All the best universities both at home and abroad, conduct their examinations entirely by means of written papers. Let the examination, by all means be a rigid one, and let the standing of the candidates be determined solely upon the character of their written papers. It may be urged that the oral examination is the best test of a man's fitness and that he has no chance for cribbing; but it has always been the custom to pass without an oral all who have answered *fifty* per cent of the questions, so that it is only the inferior men who are supposed to receive an oral, and this examination is given, to help them to make up if they can, wherein they were deficient in the written examination. It is quite evident that this act of clemency on the part of the council board is not appreciated by the students.

ONTARIO MEDICAL COUNCIL EXAMINATION—The following gentlemen have passed the final examination of the Board and are entitled to the license of the college—D. C. Brooke, B. F. Butler, J. L. Browne, R. Clapp, J. W. Caughlin, A. B. Chisholm, A. Cattanach, J. Dryden, C. Hamilton, W. Henderson, R. N. Horton, F. Hanna, H. Hunt, D. Kilborn, T. Kidd, R. Leonard, J. M. Lefevre, A. McDiarmid, R. P. Mills, J. McIlhargy, G. McCullough, D. O'Brien, E. Prouse, G. C. Rowe, E. Sullivan, R. W. B. Smith, E. M. Thuresson, J. A. Todd,—passed without an oral T. W. Beeman, W. Bremner, J. B. Baldwin, F. Black, W. F. Chappell, T. Chisholm, R. A. Davis, J. T. Dowling, J. S. Edwards, A. J. Geikie, D. H. Gould, A. C. Graham, T. R. Hossie, H. W. Lloyd, G. W. McNamara, J. McArthur, D. D. Nelles, G. O'Reilly, C. O'Gorman, and G. C. Ward.

There were 12 or 13 candidates besides these who passed the final examination, but as they did not matriculate till 1876, the licenses cannot be granted until 1889 unless by the authority of the Council.

MEDICINAL AND SURGICAL PLASTERS.—We have been favored with a sample of plasters from the well-known manufacturers, Messrs. Seabury & Johnson, of London and New York. Their me-

thod of manufacturing adhesive plasters with rubber has given the utmost satisfaction. The adhesive properties of the surgeon's salicylated adhesive plaster, its strength and durability, render it invaluable in the treatment of wounds, fractures and the like, and its antiseptic properties are a great desideratum, as it can be kept on without irritating or in any way inducing septic conditions. It is readily applied, requiring neither heat nor moisture, conforms quickly to the parts, and adheres more firmly than any other form of plaster. Salicylic acid has also been incorporated in their isinglass plaster, by which it has been much improved. The Belladonna plaster, in rubber combination, manufactured by Seabury & Johnson, cannot be surpassed. In addition to its greater medicinal strength, it is freed from all stimulating and irritating properties, and its sedative qualities are thereby promoted. They also manufacture cantharidal plaster, mustard plaster, etc., all of the first quality.

TRINITY MEDICAL SCHOOL.—The annual examinations in this institution took place at the close of the winter session, and the following successfully passed.

First Year's Examination.—W. F. Peters, 1st First Year's Scholarship, value \$50; Ferrier, 2nd First Year's Scholarship, value \$30; M. L. Cameron, Urquhart and Wolverton.

Primary Examination.—Mearns, Second Year's Scholarship, value \$50; Hatton, M. A. Martin and R. Wilson, certificates of honor; Chappell, Ellis, R. McWilliam, J. McWilliam, Patterson and J. E. Shaw. Mr. McNaughton passed in Anatomy, Physiology and Botany, and Mr. Lundy in Anatomy and Physiology.

Fellowship Degree.—Mr. Chappell, Trinity gold medal; McDiarmid, Faculty gold medal; Thurless, Faculty silver medal; Duck, certificate of honor; Anderson, Geikie, O'Gorman and Parke.

The annual Commencement for the conferring of prizes, scholarships and diplomas was held on the 24th ult., and was largely attended. The successful students were well received and warmly applauded by their class-mates.

MCGILL UNIVERSITY, MONTREAL.—There were 166 medical students registered in McGill Medical School during the past winter. The following gentlemen have received the degree of M.D., C.M. :

J. L. Brown, H. J. Burwash, B. F. Butler, P. E. Carman, J. B. Carman, M. Chisholm, W. Case, T. Gray, J. H. Groves, D. F. Gurd, G. C. Hart, F. Hanna, A. J. Henwood, A. W. Imrie, J. L. Irwin, J. A. Jackson, C. J. Jamieson, J. B. Lawford, J. M. Lefebvre, H. W. Lloyd, C. C. Lyford, J. A. McArthur, O. J. McCully, M.A.; G. McCullough, W. J. McGuigan, S. McNee, J. B. Menzies, O. H. Riley, M. C. Rutherford, J. G. Scott, M. M. Seymour, W. F. Shaw, J. Smith, R. Spencer, W. R. Sutherland, C. A. Weagant, H. V. Williston, M.A. Prizemen—Holmes gold medallist, J. B. Lawford; best final examination, A. W. Imrie; best primary examination, J. A. McDonald; Sutherland gold medallist, W. L. Gray. Honorable Mention in final examination, Messrs. Shaw, Gray, Sutherland, and Williston; in primary, Messrs. Josephs, W. L. Gray, J. W. Ross, Beer, Rogers, Henderson, R. B. Struthers, and Heyd. Practical Anatomy prize, C. N. Beer; Practical Chemistry prize, W. Moore; Junior Class prize, J. Ross.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, KINGSTON.—The following gentlemen have successfully passed their professional examination and obtained the Diploma of the College. They are placed in order of merit.

Final.—W. H. Henderson, J. C. Cleaver, G. G. T. Ward, P. C. Donovan, W. A. Lafferty, R. A. Leonard, R. N. Horton, G. Judson, G. Newlands, T. Hassie, R. K. Kilborn, R. N. Abbott, W. Cleaver and J. McCammon. All the above passed without an oral examination.

Primary.—J. E. Galbraith, H. H. Chown, J. Odum, C. Empey, W. A. Lavell, L. Day, T. Wilson, W. Waddell, J. Knight, H. H. Reeve, C. G. Clark, W. D. Reid, C. H. Dickson and M. McPhadden. The first five passed without an oral.

Dr. Clark, a graduate of an American college, also passed on a written examination.

COLLEGE OF PHYSICIANS AND SURGEONS, QUEBEC.—The semi-annual meeting of the College of Physicians and Surgeons, of Quebec, will take place in the Normal School, Montreal, on the 14th inst. Candidates for examination or license should remit their papers, accompanied with the fees (\$20), to Dr. Belleau, Quebec, or to Dr. Dagenais, Montreal, at least ten days previously. The preliminary examination or matriculation will be held at the same place on the 8th inst.

THE PLAGUE IN BRAZIL.—Bad as was the plague in Russia, a still worse scourge has existed in Brazil. Thousands of persons have fallen victims to its ravages. It first commenced after the drought in 1877, which occasioned a partial famine. It continued through 1878, first in the form of small-pox, then followed cholera, yellow fever and a peculiar disease known there as beriberi, and finally a disease resembling the Russian plague. The death rate at one time amounted to 1,000 per day in a population of 75,000, the largest death rate probably on record.

PROHIBITORY REGISTRATION.—To show the feeling of the profession in Ontario in regard to the recent action of the Executive Committee of the Council, we publish the following as a sample of the letters we are receiving on this subject:

SIR:—I am glad to see by the April number of the *Lancet* that you uphold the view I have always held on the registration question, and oppose this foolish, undignified and unprofessional trades-union-like action on the part of the council in seeking to impose a prohibitory registration for our British graduates. I can only compare it in my own mind with the attempt made last session of the Canadian Parliament by the British Columbia people to exclude Chinamen from that province, and I sincerely hope it will be equally unsuccessful.

ERGOT AND SODIUM BROMIDE IN EPILEPSY.—Prof. Bauduy reports (*Cin. Lancet and Clinic*) a case of epilepsy of 16 years standing, which was cured by giving twenty grains of bromide of sodium, with half a drachm of fluid extract of ergot three times a day. This treatment was continued a year and a half, and four years have elapsed without the recurrence of a fit.

LADY PEDESTRIANISM.—The Medical Society of Philadelphia has entered its protest against the barbarities inflicted on women in the name of physical culture and pedestrianism, and has called on the Mayor to put a stop to it. The "Society for the Prevention of Cruelty to Animals" should interpose if nothing else will arrest this stupid and insane folly.

TORONTO SCHOOL OF MEDICINE.—The following are the names of the prizemen at the recent school examinations: First year, J. T. Duncan; second year, J. H. Duncan; third year, Cross; fourth year, Clapp.

MALTINE.—This new preparation is rapidly growing in favor among those who have tested it in their practice. In England it has received the attention of some of the most eminent physicians. It is a highly concentrated extract of malted barley, wheat and oats, and contains all the medicinal and nutritious qualities of these cereals. It is prepared with great care, so as to preserve intact the various principles which it contains. Maltine has been used with great success in the treatment of nervous debility, indigestion, pulmonary affections, wasting diseases of children, and during convalescence generally. The manufacturers have combined it with iron, quinine, pepsine, pancreatine, extract of beef, wine etc., in preparations which are elegant in appearance, palatable to the taste, easily administered, and which fully meet the requirements of medical practitioners.

TWIN BIRTHS WITH AN INTERVAL OF THREE DAYS.—Dr. Post, of Beirut, Syria, (*Med. Record*), reports a case of twin births with an interval of three days between the birth of the first child which was living, and the second which was still-born. The woman was attended by a midwife. The labor pains ceased immediately after the birth of the first child and the liquor amnii continued to escape for thirty hours. At this time the doctor was called in, but the woman refused to permit an examination, except by palpation over the abdomen. The feeling was that of a gravid uterus at full term. He left her, declining to give ergot unless allowed a satisfactory examination, and was informed that she was delivered of the second child on the third day.

OPENINGS FOR MEDICAL MEN.—There is an opening for a medical in Heathcote, Ont. Also, one wanted, to whom a bonus would in all probability be given, at Amherst Island.

The death of Dr. Geo. B. Wood, of Philadelphia, author of "Wood's Practice of Medicine," etc., is announced in our American exchanges.

ROYAL COLLEGE OF PHYSICIANS, LONDON.—The following is the official list of officers. President, J. R. Bennett; Treasurer, E. J. Farre; Secretary, H. A. Pitman; Examiners, Drs. Beale, Pavy, Priestley, Harley, Dickinson, Braxton Hicks, Moxon, Bastian, Liveing, Bernays, Thos. Smith and Croft.

DEATH FROM CHLORAL HYDRATE.—A death from an overdose of chloral hydrate occurred lately at Georgetown, Ont. An inquest was held by Dr. W. Freeman, and it was decided that the drug was taken by deceased to procure sleep.

UREA FORMED IN THE LIVER.—From some experiments lately performed by Prof. Gamgee, of Manchester, he has arrived at the conclusion that the liver is the principal, if not the only organ, concerned in the formation of urea.

ELECTION.—Dr. Husband, of Hamilton, has been elected Homœopathic representative on the Ontario Medical Council in lieu of Dr. Campbell, deceased.

NEW WORK ON GYNÆCOLOGY.—Dr. J. Marion Sims is expected to return from Paris to New York in September next. His work on Gynæcology is nearly completed and will be issued shortly after his return.

QUARANTINE.—Dr. Montizambert, Superintendent of Quarantine, has returned to his duties at Grose Isle, Que.

CORONERS.—N. A. Powell, M.D., of Edgar, has been appointed Associate Coroner for the County of Simcoe. E. E. McNichol, M.D., of Cobourg, to be an Associate Coroner for the United Counties of Northumberland and Durham.

John Byers, M.D., of Lloydtown, to be an Associate Coroner for the counties of York and Simcoe.

APPOINTMENTS.—Dr. C. O'Reilly, Medical Superintendent of the Toronto General Hospital, was appointed to conduct the oral examinations in Physiology at the Ontario Medical Council examining board, in the absence of Dr. Pickup, a duty which he discharged most efficiently and satisfactorily, considering the short notice given him.

Dr. Almon, of Halifax, has been appointed Senator in the room of Senator Northrup, deceased.

Dr. Millman, of Woodstock, has been appointed assistant physician to the Asylum for Insane, London, Ont.

Dr. A. Davidson, of Trinity College, has been appointed assistant house surgeon to the Leith Hospital, Scotland.

Dr. Neish, formerly of Kingston, has been appointed Senior President Medical Officer of the Public Hospital, Jamaica.

REMOVALS.—Dr. A. M. Rosebrugh has removed his consulting rooms from 117 Church street to 85 Gerrard street east.

Dr. P. E. Kidd, of Manotick, has removed to Midland City, where he intends to practice. On the eve of his departure he was tendered a farewell supper by his friends and acquaintances in Manotick. The evening was spent very pleasantly. Dr. Kidd leaves much to the regret of many warm friends. He is succeeded by Dr. E. Kidd, formerly of Carleton Co.

Dr. Dumble, formerly of Belleville, has removed to Demorestville, where his success is already secured.

Dr. Wm. McKay, of Drumbo, has removed to St. Mary's, Ont.

QUEEN'S COLLEGE CONVOCATION.—The following gentlemen have received the degree of M. D. of this University; named in order of merit:—Wm. H. Henderson, J. C. C. Cleaver, Geo. C. T. Ward, P. C. Donovan, W. A. Lafferty, R. A. Leonard, R. N. Horton, Geo. Judson, Wm. F. Cleaver, Geo. Newlands, jr., Thos. R. Hossie, R. K. Kilborn, R. H. Abbott, Jas. A. McCammon, and W. Clark.

TYPHOID FEVER IN AN INFANT.—A case of enteric fever in a child fifteen months old is published by Dr. Walker in the *British Medical Journal* of March 8, 1879, and another case is published by Dr. Wiltshire in the number for March 22nd, as having occurred in an infant six months of age. The child manifested the ordinary symptoms, and the eruption was abundant and pathognomonic. The disease had been contracted through the food, which was almost wholly artificial.

MEETING OF THE ONTARIO MEDICAL COUNCIL.—The regular annual meeting of the Council of the College of Physicians and Surgeons of Ontario will be held in this city on the 13th inst.

DINNER TO PROF. GROSS.—A complimentary dinner was given to Prof. Gross, of Philadelphia, on the 10th ult., in commemoration of his 51st year in the medical profession. The banquet was largely attended by representative men from all parts of the United States. He was also presented with a gold medal with the letters "S. D. G." set in diamonds on one side, and on the reverse, the following inscription: "Presented to Dr. S. D. Gross by his Medical Friends in Commemoration of his 51st Year in the Profession."

The death of Dr. Isaac Hays, editor of the *American Journal of Medical Sciences*, on the 12th ult., at the age of 83, is recorded in our exchanges. He was at the time of his death the oldest living American editor.

Dr. John M. Woodworth, supervising Surgeon-General of the United States Marine Hospital service, died in Washington on the 14th of March.

Reports of Societies.

NEWCASTLE AND TRENT MEDICAL ASSOCIATION.

A meeting for the purpose of re-organizing the above association was held in Peterborough, on the 2nd ult. Members were present from Peterborough, Port Hope, Cobourg, Millbrook, Cold Springs and Mt. Pleasant.

The following officers were elected, viz. :— President, Dr. Herriman, Port Hope; General Secretary and Treasurer, Dr. Waters, Cobourg; Local Vice-Presidents, Drs. Boucher, Peterborough; Hamilton, Port Hope; Willoughby, Colborne; Local Secretaries, Drs. Bell, Peterborough; Burnet, Cobourg; Halliday, Grafton. Committee on By-Laws, &c., Drs. Boucher, Bell and Fraser, Peterborough.

Dr. Hamilton read a very interesting paper on the "Diagnosis of Croup," which elicited considerable discussion. On motion he was requested to furnish it to the "Lancet" for publication.

Drs. Fraser and Hunter promised to bring interesting cases before the next meeting, to be held in Cobourg on the first Wednesday in June. It is to be hoped all the medical men in the Division will endeavour to be then present and encourage the continuance of a flourishing association.

OXFORD MEDICAL ASSOCIATION.

The second regular meeting of the Medical Association of the County of Oxford for the year 1879 took place at Ingersoll, April 10th, the President, Dr. Williams, in the chair.

After the usual routine business, the subject of Locomotor Ataxia was introduced by Dr. Smith, of Mount Elgin, who cited cases in practice, Drs. Scott, Williams, and Hoyt taking part in the discussion.

Dr. Turquand, of Woodstock, gave a description of the varieties and complications of Diphtheria, which elicited a good deal of discussion from the members present, Drs. H. M. McKay, Smith, and Williams taking part.

Dr. A. McKay was appointed Secretary, owing to the appointment of Dr. Millman to the Asylum for the Insane, London. The Association adjourned to meet in Woodstock on the second Thursday in July.

Books and Pamphlets.

PHYSICS OF THE INFECTIOUS DISEASES," by C. A. Logan, A.M., M.D. Chicago: Janson McClurg & Co. Toronto: Willing & Williamson. Price \$1.50.

The above is the title of a little book in which some interesting matter is found, associated with a rather liberal sandwiching of dissertations on subjects, the adequate disposal of which must be very imperfectly accomplished in a few by-chapters, embraced between the boards of a diminutive octavo of 212 pages. We certainly, with all sincerity, could have wished that Dr. Logan had expanded his observations on the second and third parts of his production,—“The Physical Aspects of the Pacific Coast of South America,” and the “Medical Aspects of the Pacific Coast of South America,” to the exclusion of his wandering speculations on “the Theory of Specific Causation,” the “Therapeutics of the Infectious Diseases,” and various other matters, the ventilation of which, doubtless, pressed heavily on his long suffering conscience. In truth, we are strongly tempted to conjecture, that the author's experiences of the Pacific Coast, valuable and instructive though they certainly are, would never have seen the light, had they not afforded promise of favourable opportunity for associate exhibition of his views on a goodly number of other subjects, which are at present, and long have been, and we imagine will long yet continue to be, questions of keen controversy.

It needs but a glance over the headings of the second half of the book, to throw the reader into the prodrome of an ague shake, in contemplation of the *omnium gatherum* of ponderous and portentous subjects threatened to be discussed, the very enumeration of which is an enterprise before which our courage pales.

Among these it would be wonderful that we should not find the “*Living Germ*” theory conspicuously figuring. But of this *bete noire*, Dr. Logan makes a pretty summary disposal, in less than 5 short pages, consigning it to the “tombs of all the Capulets” with little less than magic celerity.

We are by no means assured that had Dr. Logan read the latest experiments reported by Pasteur, Joubert, and Chamberland, on “the theory of germs,” (of which a translation was given in our columns, in the numbers for December, January, and February, last), he would have so precipitately pronounced

sentence on its demerits. We remember having once read a very harsh review of a work which to-day stands high in the estimation of profound scholars, rushed into type before ever the book had reached the critic; but what of that? he had seen transatlantic condemnations of the work, and he felt pretty sure that his own contribution to the fund would be graciously accepted.

Dr. Logan repudiates the germ theory of disease, but he seems not to hesitate over the alternative one of *fermentation*.. This is very nearly a distinction without a solid difference. It is merely the substitution of a vegetative, for an animate process of propagation, and so far as preventive means are concerned, we cannot see that it at all lightens the anxiety or the labour of the surgeon or physician.

Should Dr. Logan find the appreciation of his book by the profession, such as to entice him to a second edition, we would entreat him to enlarge his observations on the valuable concrete matter, relating to the climate and diseases of the South American Pacific Coast. What he has written in this relation is truly valuable, and we cannot pardon him for his penurious curtailment of so instructive and interesting a subject. In the event, however, of re-appearance, we would venture to suggest that the book will lose nothing in merit, or discreet prestige, should the author make free use of the pruning knife in cutting out a few rather tall metaphoric phrases, which are scarcely consistent with classic medical literature. This is perhaps an American national frailty, or a sort of bacterial germ,—(we beg pardon,—a quasi-fermentative), impermeation,—the parental source of which is most probably in the same region with the zymotic inspirations of 4th of July eloquence.

After all, we must say, Dr. Logan's book is well worth the labour of perusal, and if all who read it appreciate it as we have done, they will wish it had not been so short where it is not long enough, and pardon the length where it might have been shortened.

THE POPULAR SCIENCE MONTHLY for May 1879.

This is the first number of the fifteenth volume of this interesting and popular monthly. It opens with an article from the pen of the late Prof. Daniel Vaughan on "The Origin of Worlds," which is a masterly presentation of the view that the planets like the living beings which inhabit them have their periods of growth, maturity and decay, to be followed by the birth of new ones. This is the third of a series on astronomical subjects, now unfortunately cut short by the death of the author, under circumstances of suffering and privation rarely paralleled in a civilized community. Then follows an article on "The Growth of the Will" by Prof. Alexander Bain, in reply to an

attack by Prof. Payton Spence; one on "New Guinea and its Inhabitants," by A. R. Wallver; Clews on Natural History by Andrew Wilson; Sensation and Sensiferous Organs by Prof. Huxley.

PHYSIOLOGICAL THERAPEUTICS.—In our notice of Dr. Poole's work in the last issue, the following paragraph, just preceding the last, was accidentally omitted. "In regard to the difficulties urged against the present theory, the author gives the action of alcohol as an instance: a glass or two of spirits usually causes a degree of vascular dilatation as seen in flushing of the face. On the accepted theory, arterial dilatation as seen in flushing, blushing, etc., is the effect of vaso-motor paralysis. Therefore alcohol, to produce flushing, must act as a paralyzer of the vascular nerves. But alcohol in such quantity is universally and properly regarded as a stimulant, which temporarily increases nerve force and certainly does not paralyze it. The accepted vaso-motor theory, the author maintains, is quite inconsistent with the facts of this simple case. He gives many illustrations of similar purport. The author is to be congratulated on the able manner in which he has advocated his theory, and placed it before the profession. It is not only very ingenious, but also well sustained by argumentative and cogent reasoning. The work also embodies several very important points, other than the vaso-motor theory. The opinions of the author are not wholly gratuitous and unsupported. He quotes extracts in support of his theory from many leading and recent authorities.

CATALOGUE OF MAMMALS, BIRDS, REPTILES AND FISHES OF CANADA. Collected and classified by A. M. Ross, M.D., Montreal, Que.

A catalogue of the Flora of Canada by the same is also nearly ready.

Births, Marriages & Deaths.

In Toronto on the 17th of April, the wife of Dr. R. B. Nevitt, of a son.

At Londonderry, N. S., March 31st, the wife of Dr. James Kerr, surgeon, of a daughter.

At Shediac, on the 16th ult., Dr. R. Botsford, son of Hon. Judge Botsford, to Queen, eldest daughter of Lewis Carvell, Esq.

On the 4th ult., Martha J. Douglas wife of Dr. Thos. T. S. Harrison, of Selkirk aged 35 years.

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Original Communications.

ON UNUNITED FRACTURE.*

BY H. HILL, M.R.C.S., ENG., L.S.A., LOND., OTTAWA.

The paper I shall have the honor to read before this Association, consists of a few practical remarks on the subject of ununited fracture, the collected experience of half a century's observation of surgical cases. This subject is not only interesting in itself, but occasionally the consideration of it becomes of extreme importance, as cases of fracture where union has not taken place, have not unfrequently given rise to actions-at-law for damages for alleged mal-practice, and it will therefore be useful to enquire how far these unrepaired lesions may be debited to dame nature, or to faulty, or injudicious treatment on the part of the attending surgeon.

The process of repair is usually accomplished by bony re-union of the separated or partially separated portions, but there are instances of fractures that we can rarely expect to unite in such favorable circumstances; the neck of the thigh bone, the olecranon, and patella would be instances of this character, and fractures of the cranium where portions of the skull have been removed by trephine or otherwise, are usually only repaired by the formation of a strong and dense membrane. I say *usually* because there are exceptions to this general rule. In one case occurring in my own practice, on whom I performed the operation of trephining some twenty years ago the space on the os frontis, whence the removed portion was taken, has been filled up by bone to all appearances, as the eschar is quite hard and unyielding, giving quite a different feel and appearance from membrane, consequently I can only look upon it as an exceptional

case, and that the bone has been reproduced either by the agency of the vessels of the periosteum, Haversian system, vessels of the diploe and dura mater.

During a very lengthened practice of the profession, and with frequent opportunities of observation, I have been astonished at the wonderful efforts of nature in the reparation and reproduction of bone, after removal by exfoliation or otherwise. Memory furnishes me with one case of recent occurrence in the General Hospital of this city, under the care of my friend, Dr. Lynn, in which a sequestrum of the tibia was removed, measuring at least six inches in length, by an inch or inch-and-a-quarter in diameter. We were informed that this case was the result of twenty years' abortive attempts of nature to rid itself of a foreign body, which was ultimately removed by Dr. Lynn. It left a gap in the anterior aspect of the leg resembling very much what the Yankees call "a dug out," and I thought this cavity would remain, and that the skin would heal over it, accommodating itself to the irregularities and with much corresponding deformity; strange to say the concavity has filled up almost entirely after about two years, and the eschar gives no idea of the extent or measurement of the original destruction and subsequent removal. Still another recent case of extensive repair has occurred under the care of the same gentleman, where resection of the knee-joint has been successfully performed on a little boy about 10 years of age for disease of the end of the femur. These two instances are two creditable notices of operative surgery, and are, I think, not at all out of place in a paper of the nature before us.

Since the animal machine is so liable to accidents of more or less severity, and the purposes of life would soon be arrested if every injury produced death, or permanent or even partial disability, a provision for repair becomes as essential as that for nutrition. It has been customary, with the earlier pathologists, to assume that all repair was an effect of inflammation; but the process of repair is acknowledged to be a beneficial, gentle and painless affair, thus differing widely from inflammation, a process injurious, violent and painful. True it is that repair and inflammation have one feature in common, namely, exudation, and that exudation induced by inflammation, may after the latter has ceased, become as it were the basis of

*Read before the Bathurst and Rideau Medical Association at its last meeting.

repair; but of all repair, it may be observed that it is more perfectly and rapidly executed in proportion to the absence of every symptom which may be fairly called inflammatory.

In some of the lowest animals, as the polypi, repair would appear to be almost unlimited, any portion of the severed animal being able to reproduce the rest; whole limbs are reproduced in the lizard and lobster tribe. But when we ascend to the higher scale of animal life, we find it is only the commoner structures that can be restored. To quote from Sir William Paget, we ennumerate:

1st. Those which are formed entirely by nutritive repetition, such as the blood and epithelia.

2nd. Those which are of lowest organization and of lowest chemical character, such as the gelatinous tissues, the cellular and tendinous, and the bones.

3rd. Those which are inserted in other tissues, not as essential to their structure, but as connecting or incorporating them with the other structures of vegetative or animal life, such as nerve fibres and blood vessels. Thus then, we see that the tissues that are capable of being reproduced, are the connective or areolar tissue, including tendons and ligaments, bone and cartilage, blood-vessels and nerves, but not more complicated structures, such as muscle, &c.

The material employed by nature in the process of repair, or reproduction in all tissues, is of course the blood, or rather the liquor sanguinis or fluid part of the blood, but more especially that constituent part of it which has the power of spontaneous coagulation, and which is commonly described as fibrin or coagulable lymph, whose natural tendency is to develop itself into fibrinous or connective tissue, which in certain cases may be further developed into cartilage and bone.

The time within which repair is effected varies as greatly as the nature of the injuries, ages and constitutions of those who are the subjects of them. Vascularity, or formation of new blood-vessels in a new fibrinous exudation, may occur in less than 48 hours, and in the process of granulation a layer of lymph effused one day may appear vascular by the next. Conditions most favorable to repair are early life, the younger the system, the more is it capable of repair; secondly, the state of the blood, which must be so healthy and rich, as to yield readily the necessary materials, in order that the

lymph effused is capable of ready development. Conversely, we find that extreme age interferes in a marked degree with the process of repair, also a poor state of the blood, or this fluid so loaded with ill-assimilated or poisoned material, that effused lymph runs into degeneration, forming pus, which may infect the whole system to such an extent that death even may supervene from pyæmia or septicæmia.

Under ordinary circumstances, that is to say where good apposition has been secured and maintained, where perfect quiet of the parts has been observed, and where the constitution has been kept up, *union* more or less perfect may be reasonably expected in from six to eight weeks, though it may be extended to twelve weeks or more, but after that time the case may fairly be regarded as one of "united fracture" and has to be treated accordingly. As to the cause of failure in these unfavorable instances to produce union, where the previous conditions have been fulfilled, we should have no hesitation in ascribing it to *nature* in nine hundred and ninety-nine cases out of every thousand, rather than to ignorance, want of skill or negligence on the part of the surgeon; and too much care cannot be observed in the witness-box where actions for malpractice impose a most disagreeable duty on a brother practitioner at all times, whose evidence may ruin the prospects of another where no grounds whatever are in existence for any legal remedy against the "freaks of nature." It would thus appear that in the very large proportion of cases of non-union of fractures, that the constitution of the patient is impaired to such an extent that the necessary "*vis medicatrix*" is wanting to complete the process of repair, which is either totally or partially arrested. Too frequent motion and disturbance of parts, are frequent causes which may operate to prevent or lengthen the process of repair in the human subject, whereby the effused lymph thrown out is either converted into bands of fibrous tissue, partially uniting the broken bones, or else a complete false joint is formed provided with synovial membrane and surrounded with a ligamentous capsule.

Non-union is particularly likely to occur when the reparative process may be weakened by deficiency of the vital powers exhausted to any extent by age or debility; also by cachexia induced by gout, syphilis or cancer; also by the recurrence of

fever or any acute disease ; or by the absence of nervous power or influence : thus a case is recorded where a patient had a fracture of the arm and leg, and also an injury to the back inducing paraplegia, the arm readily united, but no union of the bones of the leg took place. Pregnancy and lactation are also recorded as exciting or predisposing causes of non-union. Of course there are innumerable grades of "non-union," in very many the want of complete repair is very slight, and it is difficult to find out that it exists at all, except by the feelings of the patient, who refers mostly to weakness or want of confidence, at other times a very limited extent of motion is observable by a careful examination of the parts. Now it is particularly in cases of this character where the insertion of a seton becomes of great utility ; in fact, very few cases are recorded where perfect union has not attended this simple operation. It is by no means of a formidable character, a scalpel and strong packing needle are the only instruments required, and usually the transit of the needle armed with a good sized skein of cotton or silk thread is performed without much difficulty ; the only nicety required is to make out as accurately as possible the direction of the fracture and then pass your needle in its axis, avoiding the neighbourhood of any large vessel which might by any accident be wounded, and thus causing much trouble and annoyance. I have kept these setons "in situ" for four weeks, ultimately with perfect success, but a few days only will occasionally be quite sufficient to effect the desired result, as we have lately seen in the General Hospital in this city, where a very large amount of inflammation was induced, and as a precautionary measure the seton was withdrawn. I fully expected it would be necessary to re-introduce it, but I was agreeably disappointed, the case was one of fracture of the tibia and fibula, and presented itself ten months after the accident ; he left the hospital perfectly well. We are told that a less severe operation with the seton is just as effectual, namely, to pass it through the soft parts only, close to the fracture ; as to its success I cannot speak authoritatively, as I never have tried it, I should however, much prefer the orthodox old fashioned plan.

The treatment I have just alluded to is that recommended after weeks and perhaps months have elapsed from the receipt of the injury, without the

result being satisfactory. In more recent cases where nature does not appear to be as busy as she should, rubbing the ends of the bones together, external application of iodine, blistering, &c., have all been used with greater or less effect ; subsequently scarifying the ends of the bones by subcutaneous incisions or pegging with ivory pegs as recommended by Deffenbach, and finally the seton treatment above alluded to. These various plans have sole reference to the absence of any constitutional taint, to which want of union may be attributed. Debility particularly has to be combated by tonics, generous diet, and possibly stimulants, particularly in those cases where the patients had been in the habit of indulging. Dr. Fergusson relates a case of fractured thigh, in which no callus was formed until a reasonable quantity of whiskey was ordered. Sir B. Brodie relates similar cases. The muriate and phosphate of lime may be administered internally. Mercury, where a syphilitic taint is suspected ; in fact Mr. Barnsby Cooper records a case where union finally took place after failure with seton, in which he had administered mercury even to ptyalism. Continuing extreme mobility of parts, after fracture has existed for 12 or 18 months leads us to diagnose either the existence of a false joint or simply union by those ligamentous bands of which we have previously spoken, and which in either case renders a limb comparatively useless. All other measures having thus far failed of success, our last resource is resection, cutting down on the fracture, sawing off a thin slice of each end and splicing them together as it were ; of course these operations are severe and not unattended with danger, and therefore should only be resorted to when absolutely necessary.

In this way I resected the humerus with complete success some 30 years ago, and as I have notes of the case I shall presently trespass on your patience by reading them. In the meantime I will allude to two cases, which were resected at the General Hospital, of non-union of fractures of the femur ; the late Dr. Beaubien did the operations with the assistance of the staff. They were unfortunately both failures, and I attribute this circumstance to some of the muscular tissues becoming entangled as it were between the new surfaces of the bones and thus preventing complete apposition. In any future attempt of a somewhat similar character, I should recommend very strongly a

piece of catgut to be tied round the bones so as to keep them in the closest apposition, and I have little doubt but that good results would follow. The case I have alluded to above, is as follows: "Alex. Lackie, æt 16, a healthy lad living in the country, was engaged chopping when a limb of a falling tree struck him on the right arm, fracturing the humerus three or four inches above the elbow-joint. The nearest professional assistance was distant some 8 miles, and when the attending surgeon arrived, it was put up in the usual way, with four splints, and properly supported with a sling. Five weeks were allowed to elapse ere it was examined again, and after another five weeks, his mother removed the splints, and it was discovered that not the slightest attempt at union had taken place. Rubbing the ends of the bones was employed, and the splints were re-applied for three weeks, but still no improvement; friction was again resorted to but with no better success. Then a seton was inserted and retained for about a fortnight, still no improvement; from the appearance of the eschar the needle did not seem to have transfixed the fractured portions. Just twelve months after the accident he was put under my care; at that date the arm was much smaller than its fellow consequent on muscular wasting; its outline from the acromion process to the elbow was perfectly straight, whilst the limb hung perpendicularly to the side, but immediately he tried to bend it, the angular projections of the separated humerus were visible to the eye, and on examination by the hand it was found to possess all the liberty of motion of an enarthrodial articulation. The ends of the separated portions seemed somewhat rounded and smooth, but their middle parts seemed to be connected in some way by a kind of semi-cartilaginous or ligamentous growth; there was not the least appearance of callus. In examining the limb even roughly, no pain was caused, but it was perfectly useless, and of course had so remained since the receipt of the injury.

The treatment of such a case really left nothing to be done except resection, and accordingly I performed the following operation, kindly assisted by Dr. Alfred Morson, and staff surgeon Laing. Under the influence of chloroform just at this time coming into general use, an incision $4\frac{1}{2}$ inches long was made in the axis of the arm, beginning just below the insertion of the deltoid muscle on

the outside of the arm, and continued to nearly one inch and a half to the external condyle, in a line corresponding with the junction of the brachialis internus and biceps muscle. This free incision was carried down to the bone, both ends of which were carefully dissected out; care being taken to protect the brachial vessels and other important structures from injury; a very thin lamina of the smoothened surface of each end of the humerus was then removed by an ordinary saw, and the parts put as nicely together as possible. The edges of the wound were brought together with a few sutures, and the arm flexed at the elbow, was then done up in a pasteboard apparatus that had been previously adapted. About the end of the tenth week, union was complete; of course during this time, the greatest care was taken to keep the limb quiet and the bones in good apposition, and also advantage was taken of the previous hint afforded of the possibility of his constitution not being disposed to deposit lime, to correct which he was ordered daily a solution of the muriate of lime, and plenty of nourishment and beer. The case turned out to perfection. The shortening was only to the extent of about half an inch; the muscles regained their former size and shape under exercise and he could chop or perform any hard work as if no accident ever had interfered to prevent it.

UNIFICATION OF WEIGHTS AND MEASURES IN MEDICINE.

(Translated from *Le Progrès Médical*.)

BY C. W. COVERNTON, M.D., M.R.C.S., ENG., PROF. OF SANITARY SCIENCE, TRIN. MED. SCHOOL, TORONTO,

We are living at a period when science tends more and more to become international. The scientific men of to-day no longer work only for the corner of the globe which has been their birth place. In proportion as intellectual relations have been facilitated and multiplied between different countries, the ideal of mind workers has risen; their horizon has broadened and they have a consciousness of labouring at a common work, for the accomplishment of which there will be no redundancy of effort or good will. But in order that this concurrence of activities should be truly efficacious, it is indispensable that the procedures employed should everywhere be as identical as

possible, and in default of a common language that our forefathers had adopted and which in the present day would be more embarrassing than useful, it is possible it seems to us without running against any serious obstacle to advocate the adoption by different nationalities of a uniform system of weights and measures. It is this that has been demanded and long since obtained by the German physicians; it is this which is demanded and will, without doubt, be obtained in the future by the physicians of the United States. Assuredly no one will be astonished at seeing the medical profession at the head of this campaign of unification, as it particularly suffers from the present state of things.

The relatively recent and already fruitful introduction of scientific methods in the teaching and practice of medicine, renders indispensable the adoption of a *modus vivendi*, or pardon the expression, of a *modus intelligendi* to which all nations may conform, in, we trust, the near future. Is it necessary then to obtain so desirable a result, to seek from afar this system, or to create from all parts this international instrument? By no means; there is nothing to seek for, nothing to create, there is only occasion to generalize the employment of a decimal metrical system which forces on the conviction of all, the advantages it offers, and before all its perfect simplicity. It is not an easy thing to upset, we will not say in a day, but even in several years, the national and medical customs of a vast multitude of practitioners. With this object in view it is necessary that the proposed system should recommend itself not only by its practical utility, but also by extreme simplicity. Better than any other, the metrical system realizes this necessary condition. There is no man of ordinary intelligence who could not in two hours comprehend its admirable mechanism, and master the fundamental idea in such a manner as to acquire rapidly the habit of putting it in practice. And this is not a national illusion which might be considered excusable in those who have employed the system from their childhood. The fact is that it is not from France that the unification movement has started. Since 1851, commissions have been formed at the instigation of the English Association for a reform in weights and measures, reassembling successively in 1855, 1867 and 1873. Finally it is scarcely a month (the 2nd of September, 1878,) since an International Congress assem-

bled to discuss anew this question at the Palace of the Trocadéro. It was there stated, that since 1867 especially, a great number of States had adopted the metrical system, if not in an exclusive fashion, at least by giving it a legal status. Prussia has long since put it in practice. In England, it is legally recognized and perfectly understood by scientific men. Commerce and industry come to the rescue and require its exclusive adoption in the interest of simplicity in dealing. Russia has already taken preliminary measures which should secure the regular use of it, and in Sweden it will become obligatory in 1880. Almost all the other nations have adopted it without reserve. But it is the country which has been the first, or at any rate one of the first to favourably entertain it, that to-day loudly calls for its general use. Our confrères in the United States are truly those who hold the first rank in this campaign in favour of unification. There is scarcely any Medical Association in America that has not discussed this question, and that has not determined upon it in the sense that we have indicated. The *New York Medical Record*, the *Boston Medical and Surgical Journal*, the *Chicago Medical Journal and Examiner*, and many other journals entertain the same feeling on the subject of the necessity for the change. Not content with employing their energies in their local sphere of action, the scientific societies of the United States have sent delegates to all the Congresses, and these, in the first rank of which must be placed Dr. Seguin, have missed no occasion for starting anew the discussion on unification and of hastening the solution of the problem.

Still more recently at the Congress of the French Association for the advancement of sciences M. Seco Baldor from Madrid, has afresh called for unification of methods in the language and teaching of medicine. By a very laudable sentiment of courtesy, but one that we may be allowed to consider as excessive, the members of Congress thought that it was preferable to leave this question to be discussed by the Congresses held in other countries. A commission besides has been nominated by the Congress of Geneva to study this important reform, and it will forward its report to the Congress of Amsterdam. These notices will suffice to show in what shape the question at present is to be found, and what is the distance separating us from its consummation. The way is clear, but the

distance is long, and we cannot deceive ourselves in the matter. It is little by little, foot by foot, that the uniform system will gain ground. The International Congresses are held at two great intervals of time, and their programmes besides are too overlaid, for them to have on this reform anything but a general influence, too distant and elevated to be very appreciable.

The more scientific exchanges are multiplied, and for the glory of science they are multiplying every day, the more we shall see the inconveniences augment which result from a multiplicity of systems, without speaking of the material errors which the transformations give place to, and which have to be made by the assistance of a written or mental calculation. Where is the French physician who will read without impatience an English record, in which there is each day two temperatures of Fahrenheit to transform as approximately as possible into centigrade temperatures, and a prescription in grains or scruples which must be changed into centigrammes? And whatever may be the amount of British phlegm, where is the English physician who will always do without temptation the reverse work? Blessed impatiences! It is these which will demonstrate to the most opposed to change, the necessity of a reform to which the learned societies most assuredly have contributed especially to the beginning, but also that individual effort and force of persuasion which attaches to clear and simple things, will have rendered facile and universal. The medical press is all powerful in this particular. If all medical journals published abroad would follow the example of the *Boston Medical Journal* and publish prominently in each of their numbers a short resumé of the metrical system with explanatory tables the reform would not be long in becoming general. The metrical system would soon be adopted all over the world, and the happy dream that the National Convention indulged in at its creation would be realized.

METRICAL WEIGHTS AND MEASURES.

Length.

1 Metre	= 39.37	or	39 $\frac{3}{8}$ inches
1 Decimetre	= 3.94	"	3 $\frac{3}{4}$ "
1 Centimetre	= 0.39	"	$\frac{3}{8}$ "
1 Millimetre	= 0.039	"	$\frac{1}{25}$ "
1 Micromillimetre	= .000039	"	$\frac{1}{25000}$ "

Weight.

1 Gramme	= 15.43	or	15 $\frac{1}{2}$ grains nearly
1 Decigramme	= 1.54	"	1 $\frac{1}{2}$ " "
1 Centigramme	= .154	"	$\frac{1}{10}$ " "
1 Milligramme	= .0154	"	$\frac{1}{65}$ " "

THE METRIC SYSTEM IN MEDICINE.

Old style.	Metric.
Mj or gr. j. =	.06 gms.
ʒj or ʒj. =	4. " "
ʒj or ʒj. =	32. " "

The decimal line instead of points makes errors impossible. A teaspoon contains 4 gms. ; a table-spoon 20 gms.

Correspondence.

To the Editor of the CANADA LANCET.

SIR.—Two years last February I left Canada for Jamaica with the intention of establishing a "Sanitarium" for chest affections, in some part of the island provided the climate proved a suitable one. On my arrival here I thought it advisable to wait, before starting such an institution, until I had made myself personally acquainted with the climate and the people, and found a place that would be suitable for such an undertaking. During my two years' residence here, I have taken some trouble in finding out for myself, and making enquiries from other medical men as to the propriety of starting such an enterprise, and have come to the conclusion, that as a winter residence for invalids suffering from chest affections Jamaica is unequalled.

It has been a source of astonishment to many here, competent from travel and experience to judge, that the Canadians and Americans, have not availed themselves, of the advantages of Jamaica as a winter residence, being as one might say almost at their very doors.

Two reasons may be assigned, why Jamaica has been so little visited by invalids ; first, the difficulty if not impossibility of obtaining accommodation anywhere outside of Kingston, which place is in no way suitable, nor from any point attractive to an invalid ; secondly, the prevailing idea that yellow fever is a common complaint in Jamaica. Now I do not hesitate to say that a case of yellow fever, is looked on as a rare thing even in Kingston, and is almost unknown in the country districts ; and I further state, that, among the same proportion of people in Canada, there will be ten times as many deaths from diphtheria and typhoid, than in Jamaica from yellow fever.

Convinced that the climate was a good one for invalids, my next move was to find a suitable place, at a medium altitude, with the necessary buildings

and surroundings. Such a place I believe I have found, in the parish of St. Elizabeth; the property is known by the name of "Kencham" and is 1200 feet above sea level, distant from Kingston 75 miles over a splendid road, and one and a half miles from the village of Balaclava. The house, which is large and roomy, stands on an eminence, commanding from the verandah a magnificent view, and is surrounded by orange and other fruit trees. The thermometer never goes lower than 60°, nor higher than 90° F all winter; in fact I consider "Kencham" has every advantage to make it a desirable resort for invalids. The opportunity occurs to me to lease the property (some 500 acres,) but before doing so, I thought it well to ventilate my scheme to my 'confrères' in Canada, and if I can get any encouragement, in the way of patients, I will at once start my sanitarium. My residence of 20 years in Canada, places me in a position to know the requirements of Canadian invalids, and my two years residence in Jamaica, has taught me, how to meet their requirements from the resources here.

I would advise intending visitors to leave Canada early in October, and remain here till the end of May. The route would be from New York to Kingston by S. S. 6½ days, fare \$50, (a return ticket can be had); arriving at Kingston, take R. R. to old Harbor, fare \$1, there they meet a very well appointed stage, or mail coach as they call it here, which takes them to Mandeville, a delightful journey, through lovely scenery. At Mandeville they would stay all night, where there is very fair accommodation, and from Mandeville to Kencham, distant about 20 miles, by buggy next morning. Having given an outline of the trip, I will now state what my terms would be. I will engage to board, lodge and give medical supervision to all comers for \$15 a week, furnishing those that can ride, with horse and saddle whenever I deem it proper, that they should take such exercise. Extras in the way of liquors etc., must be purchased by the parties themselves. If the necessity exists of an invalid requiring a special attendant or maid, they are easily obtained here; a good little girl can be hired from \$1 to \$2 a month, she will board herself, and they make very good attendants. I could arrange to have parties coming met at the steamer when she arrives, whereby they would be saved a world of trouble and worry. Inviting enquiries from medical

men and their friends, referring them to Drs. Workman and Strange of Toronto, and Drs. Nation and Bascom of Uxbridge as to my capabilities and respectability.

I am sir, yours truly,

JAMES J. HILLARY, M.D.

Balaclava, Jamaica, April 22nd, 1879.

To the Editor of the CANADA LANCET.

SIR,—A correspondent, under the signature of "Justice," makes an attack upon the Ontario Medical Council in the last number of your journal. He begins by laying down the position that the Council was organized to "elevate the standard of medical education, to promote the welfare of the profession in general, and protect it against the aggressions of charlatanism and quackery." In the first of these objects he admits that it has succeeded. He seems, however, scarcely to have appreciated the boon which has thus been conferred upon the profession and the public. It is difficult to see in what way the standard of medical education could be raised, without, in some degree, increasing at the same time its cost. Nor is this in itself an unmixed evil. Not only is the country thus prevented from being overrun with unqualified practitioners, but there is a check upon the overcrowding of the profession, and upon the consequent lowering of its tone. All candid medical men in the Province must admit that the Council has done much to promote their interests. Indeed it is undeniable that, constituted as it is, the gentlemen composing it should do otherwise than seek, by every lawful means at their command, to advance the welfare of the profession to which they themselves belong, and in which all of them occupy such a prominent position. The Council does afford protection against quackery. (1) By drawing a sharp and clear line between lawful practitioners and charlatans. There will always be found persons who will be easily imposed upon by quacks. Nothing will remedy this evil but the general diffusion of enlightenment and education. The intelligent public, however, does discriminate and is thankful for the existence of such a body as the Medical Council to aid it in its judgment. (2.) By the appointment of a public prosecutor.

"Justice" complains that this official does not do his duty. This, if true, is a great pity, since he exists chiefly for the benefit of such timid practitioners as your correspondent yclept "Justice," who are more afraid of the opinions of the ignorant than zealous for the honor of their profession, and and for the public weal. Any person can lay the complaint before a magistrate and have the unlabeled fined. I have done so, without any injury to my professional success, and intend to look after such matters in this county (Brant), and not ask for a public prosecutor.

As for "old women midwives" looking after a case of ordinary labor, few medical men would care to contend with them about their right to do so. It has been customary from time immemorial, and these same medical men who object to them would not say a word about their administering a dose of the orthodox "goose grease" for croup; which is a much more serious trouble. "Justice" objects to pay the small sum of one dollar yearly for the maintenance of the Council. The clergy of the different denominations are organized bodies, and they do not object to being so, although it costs them something. The lawyers, without grumbling, pay a considerable sum annually to keep up their perfect organization. Why should the medical men of this Province have less *esprit de corps*?

"Justice" cavils because he believes the Ontario Medical Council has not *perfectly* succeeded in carrying out all the objects for which it was organized, and would apparently have us go back to the evils which existed before the establishment of the board. If every medical man would leave aside prejudices, exert himself to elevate the tone of the profession, and abide by legal enactments we would be better off than we are.

Yours truly,

WILLIAM T. HARRIS.

Brantford, 19th May, 1879.

TREATMENT OF CHRONIC ABSCESS.

To the Editor of the Canada Lancet.

SIR,—With your permission, I wish to offer some remarks upon the treatment of chronic abscess, anent your editorial notice, in April number, of an article by Dr. Bœckel, published in *Le Practicien*.

To the statement that "all surgeons agree in recognizing the dangers which result from the opening of chronic abscesses to a free exposure to air," I beg to dissent; while I fully endorse the statement that "in leaving them to spontaneous opening, in order that they may empty themselves slowly and gradually by a small orifice, we often avoid the accidents of the outset, because the air does not penetrate into the cavity." But the statement that "infection rarely fails, sooner or later, to break out in the course of the illness," I think cannot be supported by practical experience. Again, it is stated that the "source of this accident" (that is infectious fever) "has always been attributed to the air, but without giving an exact *rationale* of the way in which the air becomes poisonous." Dr. Bœckel goes on to say that "since the investigations of Pasteur and Lister we have learned that the microscopic germs floating in the air are the agents of decomposition of pus, and of consecutive septicæmia." The conclusion arrived at appears to my mind to have no solid ground to rest upon; that it is fallacious and misleading, and therefore mischievous. Dr. Bœckel's reading has not been very extended, if he has never learned that decomposition of pus takes place after the opening of a chronic abscess not merely because air has found entrance to the cavity, but in consequence of its being pent up, thus establishing those chemico-physical conditions most favorable to decomposition of devitalized organic matter.

In the course of my practice I have treated and seen treated not a few cases of chronic abscess, among which were psoas abscess, lumbar abscess and iliac abscess. I remember particularly one of each of these mentioned, which I had under my care some years ago. The course of treatment pursued in each instance was to open the abscess as soon as it became certain that pointing was about to take place. (And I would here state that a chronic abscess should never be regarded as incurable by absorption until indications of pointing are evident. I learned the possibility of spontaneous cures in this way, by protracted rest, from reading the cases recorded by Hilton; and my own experience has corroborated the fact.) The opening made was not small, but sufficiently large to prevent closure of the wound by adhesion. The patient was always placed in bed before the operation, and

instructed to keep as still as possible, especially the part affected. No pressure was made to force out the contents, a practice I regard as extremely pernicious. A light poultice was placed over the wound and the contents allowed gradually to discharge. This allows the structures around the abscess which have been pressed aside by the accumulating fluid gradually to return to their normal position. In these cases I am particularly referring to, as well as in many others noticed no septic poisoning followed the opening; indeed no fibrile symptoms. On the contrary the patient felt at once relieved, and immediately began to improve; and in good time perfectly recovered. The explanation to my mind appears very simple. By gradual contraction of the walls of the abscess, the contents were slowly pressed out; and at no time was there less fluid within the walls than completely filled the sac. Consequently there was no space for air to enter. Under these circumstances the walls of the abscess gradually coalesce, and ultimately, if rest be maintained, unite by adhesion. The so-called pyogenic membrane, immediately after the opening is made, is relieved from pressure, irritation ceases, and lymph is no longer poured out to become pus. Finally when the walls come into contact, the false membrane is in a condition to unite in the same manner as union takes place in secondary adhesion.

The *rationale* of those cases in which septic poisoning follows the opening of the abscess, seems to be equally plain and simple, and without the aid of air germs. When a small incision is made which subsequently closes, especially when from pressing out of the contents, or from motion of the part, a space is made into which the air naturally enters. By the closing of the aperture the air is imprisoned, and as before stated, the conditions, favorable to putrefaction at once exist. The walls become distended by fluid containing dead organic matter, and the pyogenic membrane continues its work of pouring fluid into the sac and of absorbing. Before the abscess was opened, the material absorbed, consisting of serum and worn out lymph corpuscles, was innocuous, but now the presence of pent up air causes putrefactive decomposition, which matter being absorbed produces septicæmia. In the course of my practice I have seen cases where the air did enter the abscess; but so long as the opening was sufficiently large to per-

mit fresh air to enter, after the foul air had been pressed out, and this repeated often enough, there was little or no putrefaction. Of late years however I have been in the habit of injecting some antiseptic, to suspend putrefaction, not to destroy imaginary germs but to act chemically upon the devitalized tissue in the same manner as common salt will prevent or arrest decomposition of animal flesh.

I am sir, yours truly,

WILLIAM CANNIFF.

Toronto, May 20th, '79.

ONTARIO MEDICAL COUNCIL.

MINUTES AND PROCEEDINGS.

The annual meeting of the Council of the College of Physicians and Surgeons of Ontario was held in Toronto, on Tuesday, the 13th ult., and following days. All the members were present, except Hon. Dr. Brouse, Drs. Grant and Lynn. Dr. Allison, Vice-President, occupied the chair. After the reading of the minutes of the last annual meeting, the election of officers was proceeded with.

Dr. McDONALD, of Hamilton, was elected President, and Dr. LOGAN, of Ottawa, Vice-President.

Dr. McDONALD thanked the Council for the honor conferred on him. He had thought that some other member of the profession might be selected. However, he would attempt to justify the honor.

It was moved by Dr. C. V. BERRYMAN, seconded by Dr. M. LAVELL,—“That the following gentlemen be a Committee to appoint Standing Committees:—Drs. Aikins, Geikie, D. Clarke, W. Clarke, McDonald, Vernon, Irwin, Berryman.”—*Carried.*

The Council adjourned for half an hour, to allow of the drafting of the Standing Committees.

STANDING COMMITTEES.

REGISTRATION—Drs. Bethune, Henwood, Lynn, Vernon, and Spragge.

RULES AND REGULATIONS—Hon. Dr. Brouse, Drs. W. Clarke, Edwards, Husband, and D. Clarke.

FINANCE—Drs. Hyde, Henwood, Irwin, Henderson, and Ross.

PRINTING—Drs. Allison, Herriman, and Morden.

EDUCATION—Drs. Aikins, Berryman, W. Clarke, D. Clarke, Grant, Geikie, McLaughlin, Morden, Brouse, Edwards, and Layell.

PETITIONS.

A petition was presented by Dr. Cross on behalf of the medical students, praying that they be re-examined.

A petition was also read from Leonard J. McKinnon, for a re-consideration of his case.

Peter H. Bryce's petition for permission to be examined in his second year's papers was read, as was also the petition of W. M. Howe, M.D. The above petitions were referred to the Education Committee.

Petitions from John F. Piper, G. H. Christie, and John McCarrow, for permission to practise, were referred to the Registration Committee.

REPORT OF THE BOARD OF EXAMINERS.

The REGISTRAR read the report of the Board of Examiners relative to the work performed during the recent examinations. The report was particularly severe upon the conduct of the students who acted so disorderly lately, when they attacked the building in which the examiners held their meeting. For the most part it was a defence of the examiners to the charges made against them by the students and others.

On motion of Dr. ALLISON, a Special Committee was appointed, consisting of Drs. McLaughlin, Ross, Henwood, Bethune, Edwards, and the mover, to investigate the matter and report to the Council.

A Committee was appointed to report on the credentials of Dr. Husband, after which the Council adjourned, to meet again at 8 p.m.

The President took the chair at 8 p.m. After the minutes of the afternoon session had been read and approved,

Dr. GEIKIE presented the petition of Dr. Burk, praying for protection to practise until the next examination, which was referred to the Education Committee.

It was moved by Dr. D. CLARKE, seconded by Dr. McLAUGHLIN,—“That an announcement shall be made public to any person or persons, who shall give competent evidence in respect to the recent alleged irregularities in connection with the Council examinations, to present themselves before the Committee appointed to investigate the matter at any time during the sittings of the present Council

up to Friday noon; and no student who will give such evidence shall thereby compromise his position nor affect his interests in any way by so doing.”

—*Carried.*

The Committee appointed to look into the credentials of Dr. Husband, reported that he was duly credited to the Medical Council.

On motion, the Council then adjourned, to meet at 9.30 next morning.

SECOND DAY'S PROCEEDINGS.

The Council resumed at 9.30 a.m. Dr. McDonald presiding.

The petition of F. H. Mewburn to have his examination in the matter of anatomy reconsidered, was read, and referred to the Education Committee.

Moved by Dr. McLAUGHLIN, seconded by Dr. W. CLARKE,—“That the name of Dr. Allison be substituted for that of Dr. Henwood on the Finance Committee, and that Dr. Henwood be added to the Printing Committee.”—*Carried.*

Dr. ALLISON moved and Dr. McLAUGHLIN seconded,—“That leave be given to bring in a by-law to amend the election by-law of 1870, and that the by-law be read for the first time.”—*Carried.*

Dr. ALLISON stated that the by-law was for the better election of territorial representatives to the Council.

The by-law was read a second time and referred to the Committee of the Whole. It was then read a third time and passed.

Dr. BERRYMAN then moved, seconded by Dr. SPRAGGE,—“That the sympathy of the Council be conveyed to Mrs. Campbell on the death of our late President. We also would like to place on record the good services and constant action and intelligent administration of our affairs during his administration, and that a copy of the resolution be duly engrossed and furnished to the widow of our late President.”

The Chairman read a letter addressed to the Council that he had received from a Committee of the Women's Christian Temperance Union, containing extracts from the opinions of eminent physicians, and petitioning the Council to consider the use of alcoholic liquors as a medicine.

Dr. ALLISON did not think that the matter concerned them as a Medical Council, and, with all

due respect for the ladies, he moved that it be laid on the table.

Moved in amendment by Dr. LAVELL, and seconded by Dr. AIKINS,—“That the communication be received and referred to a Committee consisting of Drs. Clarke, McLaughlin, and Logan, to report to this Council.”—*Carried.*

After some routine business, the Council adjourned till 2 p.m.

The Council assembled at 2 p.m., and went into Committee of the Whole to consider the report of the Executive Committee of their proceedings during the past year. It was dealt with clause by clause. That which referred to the protest of students of Trinity Medical School against a by-law of the Council, insisting that the students shall give evidence of having attended 75 per cent. of the lectures delivered, before they can be admitted to examination, excited some discussion.

Dr. GEIKIE stated that the students of Trinity School objected to be held by a resolution not observed by other schools as regulated by the Council. Several professors considered it derogatory to their position to be compelled to call the roll every day in order to see who were present. This school would be willing to abide by regulations of the Council, provided that all the schools were dealt with alike.

The clause was passed without any action being taken upon the protest.

Dr. W. CLARKE gave an account of the visit of the deputation to Ottawa for the purpose of soliciting the repeal of the British Registration Act. Sir John A. Macdonald had received the deputation and promised to get the Act repealed, so far as it concerned Canadian students. His Excellency the Governor-General also received the deputation, and sympathising with the profession, promised to make the necessary representations to the Imperial Government to have the Act repealed. If that were not done, great injustice would continue to be done to the profession here, as Canadian students might go to Britain, pass the examinations, return and compel registration. The position of the medical profession in Canada would be endangered if that were allowed. Sir John promised that the Canadian profession should have a copy of the Act.

The report was adopted.

The report of the Building Committee was read by the Registrar, and adopted.

The Treasurer, Dr. Aikins, read his report, as follows :—

Receipts—Balance in bank from last year's meeting, \$8,423.81; Dr. Pyne, registration fees, \$1,442.64; professional examinations, \$5,447; matriculation examinations, \$1,090; interest allowed by bank, \$165.56; miscellaneous, \$45.80. Total receipts, \$17,414.81.

Expenditure—Expenses in connection with last meeting of Council, \$1,265.38; accounts ordered to be paid at last meeting of Council, \$1,050.47; Executive Committee meeting, \$638.70; on account of church building, Bay and Richmond-sts., Toronto, together with legal services and insurance in connection therewith, \$8,997.05; matriculation examiners and expenses of matriculation examination, \$417.75; officers' salaries, \$750; miscellaneous expenses, \$636.70. Balance in Treasurer's hands, \$3,658.76.

The report was received and adopted.

The Council adjourned, to meet again in the evening.

The proceedings were resumed at 8 p.m., Dr. McDonald, President, in the chair.

The accounts for the extra charges of the Examiners were then presented, and referred to the Finance Committee.

The Council adjourned, to meet again at 10 o'clock to-morrow.

THIRD DAY'S PROCEEDINGS.

The Council met at 10 a.m. The minutes of the previous session were read and approved.

Dr. ALLISON moved, seconded by Dr. HYDE,—“That it is deemed expedient in future that no member of this Council shall be nominated to the Board of Examiners; but that all the examiners shall be appointed from among the members of the profession outside the Council.”

Dr. McLAUGHLIN moved in amendment, seconded by Dr. BETHUNE,—“That the Council will always endeavor to select from among the registered practitioners of Ontario the best available examiners.”

A discussion ensued in which several members took part. It was contended that the main motion reflected upon the members of the Council, and in their opinion such reflection should not be cast upon the integrity of that body.

The amendment was then carried.

THE ONTARIO MEDICAL ACT.

Dr. HENWOOD moved, seconded by Dr. HYDE,—"That the Ontario Legislature at its next meeting be petitioned to so amend the Ontario Medical Act, as to enable each of the territorial divisions to return two representatives to this Council, instead of one as at present."

Dr. LAVELL claimed that the schools should have proper representation, and said that they would never relinquish that claim. He contended that as teachers they had some knowledge of the requirements of the profession. He would strenuously oppose any encroachment on the rights of the teachers of the colleges. They were doing all they could to meet the exactions of the Council.

Dr. BERRYMAN considered it inexpedient and dangerous to carry out Dr. Henwood's motion. It would swamp the Universities and the homœopaths. If they obtained an Act for such a change the Universities would combine, and the repeal of it would be inevitable.

Mayor BEATY at this point entered the chamber, and was well received by the Council.

Dr. D. CLARKE spoke to the motion. He favored an increase, but not so large a one as that proposed by Dr. Henwood.

By request the yeas and nays were taken:—For, 10; against, 11.

The following are the names of those who voted on Dr. Henwood's motion:—Yeas, Allison, W. Clarke, Edwards, Geikie, Henwood, Herriman, Hyde, Irwin, Spragge, Grant. Nays, Berryman, Bethune, D. Clarke, Henderson, Lavell, Logan, McDonald, McLaughlin, Morden, Ross, Vernon.

The Council adjourned until 2.30 p.m. A number of the members of the Council and a few friends were invited by the Mayor to lunch at the U. E. Club.

The Council resumed at 2.30. Dr. Grant, who arrived during the forenoon, took his seat at the Council board. Hon. Dr. Brouse also arrived and took his seat.

THE TREASURER.

Dr. GEIKIE, moved, seconded by Dr. MORDEN,—"That hereafter the fees for the matriculation examination be paid in Toronto or Kingston, to the registrar of the college, a duplicate receipt being given in every case where a fee is received, one copy being sent to the treasurer as his voucher, and one to the candidate."—*Lost*.

Dr. BERRYMAN moved, seconded by Dr. GEIKIE,—"That no permanent position or paid office shall be occupied by any member who is in any way engaged in teaching in any university or teaching body of medicine; the meaning of the aforesaid resolution being, that it alludes to the Treasurer or Registrar of the said body of the College of Physicians and Surgeons of Ontario."

Dr. BERRYMAN said he had nothing to say against the conduct of the treasurer, but he thought it would be better to have the duties of the office performed by a person who occupied a neutral position, without having a special interest in any college.

Dr. GEIKIE and several other members spoke to the same effect.

The motion was then put and lost by a vote of 11 to 7.

A motion was carried to allow the medical prosecutor to make a statement to the Council.

Mr. SMITH, the detective, made a statement as to work done by him, and as to the difficulties under which he had to labor from time to time in the prosecution of quacks, and the expense to which he had invariably been put in such prosecutions. He said that he would perform the duties of prosecutor for \$1000, and if the total of the fines amounted to less than that sum he would do so for what he could get.

Dr. HYDE asked Mr. Smith whether he had received all the fines that had been exacted from offenders through his prosecution.

Mr. SMITH replied that he had not.

Dr. W. CLARKE moved, seconded by Dr. MORDEN,—"That the case of William Smith be referred to a Special Committee."

Dr. HYDE moved in amendment, seconded by Dr. D. CLARKE,—"That the case be sent to the Registration Committee."

The amendment was carried.

Dr. D. CLARKE submitted the report of the committee appointed to consider the petition of the Ladies' Temperance Union, praying that the College of Physicians and Surgeons should do all in its power to discountenance the use of spirituous liquors unless strictly as a medicine. The report, while expressing sympathy with the ladies in their good work, stated that it was not competent for the Council of the College of Physicians and Surgeons to express an opinion upon the subject.

Dr. AIKINS stated, as a matter of privilege, that of the fees for 170 matriculants paid in at the Treasurer's office, he (Dr. Aikins) had only received the fees from three. This explanation was given to show that he did not use the influence of his position as Registrar to induce students to go to any school in particular.

The Council adjourned, to meet at 8 p.m.

The President took the chair at 8 p.m.

Dr. HENWOOD moved,—“That the Legislature be applied to at its next session, to so amend the Ontario Medical Act as to increase the territorial representatives by five.”

Dr. ALLISON thought that the Colleges should not evince opposition to the motion, and that it would be better to agree with the territorial representatives.

Dr. LAVELL was not able to see wherein the Schools had placed themselves in opposition to the profession. He said that the existence of the Council was owing to the Schools. The Schools had elevated the character of the profession. He was not afraid, nor were the professors (although such had been suggested) that by an increase of territorial representatives their rights would be encroached upon. He said that when the Schools had conceded everything the professors had conceded nothing. He opposed the motion on account of increased expenditure, and because he thought the increase of members would decrease the efficiency of the Council.

Dr. HENWOOD said that the School men had gradually assumed control of the affairs of the Council, and the profession generally were dissatisfied with that state of things. He thought that amongst additional members they might find some whom they could place confidence in and from whom they could obtain advice.

Dr. McLAUGHLIN considered that the statement as to the Council being controlled by School men was not true. He said that the most influential spirits of the Council had been territorial representatives. He thought that if the increase were asked for, both the Homœopathists and the School men would seek an increase.

Dr. LOGAN thought the Council would not be benefitted by an increase.

Dr. AIKINS stated how the Medical Board had been established. He thought it wrong for the School men to be charged with arrogance and assumption.

Dr. HERRIMAN said that as a territorial representative he did not oppose the Schools, but rather came to sustain them.

Dr. GRANT said that the representation of the homœopathists was one in seven; that of the profession, 12 in 1800. He thought, therefore, that the rural districts were not adequately represented. He considered that the school men were not seeking their own interests. He was sure that the influence of the territorial men had assisted the school men in elevating the profession.

Drs. BERRYMAN and ROSS also spoke to the resolution.

On being put to a vote the resolution was lost. Yeas, 9; Nays, 12.

A letter inviting the Council to visit the Hospital, received from Dr. O'Reilly, was read, and it was resolved that the Council do accept the invitation.

The Council then adjourned till 10 a.m. tomorrow.

FOURTH DAY'S PROCEEDINGS.

The Council met at 10 a.m., all the members being present excepting Dr. Lynn, of Ottawa. Dr. Macdonald, the President, occupied the chair.

After the reading and passing of the minutes,

Dr. W. CLARKE moved, seconded by Dr. LOGAN,

That the memorial of the Belleville Medical Society be adopted, and the tariff of fees as recommended by them be legalized by this Council. Carried.

Moved by Dr. SPRAGGE, seconded by Dr. W. CLARKE,

That the by-law requiring students to present themselves for examination before the Council in each year be amended, and that a by-law requiring students to pass a primary and final examination be substituted.

The motion was deferred till after the report of the Education Committee was received.

Dr. GEIKIE moved that in all cases of unsuccessful candidates whose examination fees have exceeded \$10, the Treasurer shall be and is hereby directed to return the amount paid, less the sum of \$10, this amount to be retained for expenses.

The motion was carried, and referred to the Finance Committee, which reported against the proposition.

The Council then went into Committee of the Whole to consider By-laws 1 and 2 relating to the registration of graduates, Dr. Herriman in the chair.

DR. CLARKE showed that the by-laws introduced were intended to operate in favour of the students of this country by making a general registration fee of \$400, and granting a rebate of \$350 to Canadian graduates.

The By-law was read a second and third time and passed.

A By-law was also passed to sanction the printed register.

On motion the following gentlemen were appointed on the Executive Committee. Drs. W. Clark, D. Clarke, Ross, Husband, and the President and Vice-President.

The Council adjourned at noon, and several of the members proceeded in carriages to visit the General Hospital. After carefully inspecting the various wards of the institution, and expressing themselves well satisfied with its appointments, the visitors partook of luncheon with Dr. O'Reilly, the resident surgeon.

The Council resumed business at 2 o'clock, the President presiding.

Dr. GEIKIE moved, seconded by Dr. HUSBAND,—"That the Executive Committee of the Council be and is hereby directed to apply to the Legislature for a grant in aid of the Council, setting forth in the said application the claims this Council has on the Legislature, and upon the people at large; claims far greater than can be urged by many bodies, however good, which receive public aid; and that such aid is necessary to assist in the establishment of a public medical library and museum, and to enable the Council to do all in its power to maintain and elevate medical education in Ontario."—Carried.

Dr. Pyne was re-appointed Registrar, and Dr. Thos. Aikins, Treasurer, for the current year.

The following by-law was introduced by Dr. D. Clarke:—

"It is expedient that provision should be made by by-law for fixing the day upon which the Registrar is to summon the members to meet for the transaction of business.

"Be it therefore and it is hereby enacted that the Registrar shall summon the members-elect to meet on the second Tuesday of July, 1880, for the transaction of business and organizing the Council in Toronto."

The by-law was read a second and third time and passed.

After some routine business, the Council adjourned to meet at 8 p.m.

The Council met shortly after 8 o'clock.

The Council went into Committee of the Whole on the report of the Finance Committee, Dr. Logan in the chair.

The report recommended the payment of \$100 each and travelling expenses to the examiners, as in former years, and in view of the increased work the sum of \$75 extra be paid to each, and \$100 to the Chairman of the Board.

The report, after some slight amendments, was adopted.

Dr. Bethune read the report of the Registration Committee, which was adopted.

The report of the Special Committee to enquire into the report of the Board of Examiners relative to the disturbance among the students, was read by Dr. Bethune, Chairman. The report set forth that the Committee had made all possible enquiries; that one cause of dissatisfaction arose among rejected students, that a few were intoxicated and became unruly, and that the accommodation was not sufficient for so large a number of students. The report also further states that nothing was adduced to lead the Committee to believe that any of the examiners were intoxicated, although at times naturally excited; and that the examinations were conducted in an impartial manner. The Committee recommend that only a limited number of students be admitted at a time for their oral examination. The report was adopted.

PRIMARY AND FINAL EXAMINATIONS.

Upon the report of the Educational Committee being considered in Committee of the Whole, it was resolved, on motion of Dr. BETHUNE, seconded by Dr. WM. CLARKE,—“That in future students shall be subjected to a primary and a final examination, and that the term of study shall be four sessions.”—Carried.

The report was referred back to the Committee for amendments, and the Council adjourned until 9 a.m., to-morrow.

FIFTH DAY'S PROCEEDINGS.

The council met at 9 a.m. The minutes of the previous meeting having been read and approved

It was moved by Dr. AIKINS, seconded by Dr. LAVELL, “That the thanks of the Council are hereby given to the matriculation and professional

examiners for the great thoroughness of their recent examinations."—Carried.

Moved by Dr. AIKINS, seconded by Dr. LAVELL, "That the Executive Committee is requested to prepare and publish, with all reasonable despatch, a new annual announcement, and send a copy thereof to each registered practitioner in Ontario, and to send also to the same a printed copy of the questions given at the last matriculation and professional examinations, and also a copy of the register."

Dr. ARKINS moved, seconded by Dr. LAVELL, "That the Executive Committee are requested to make a thorough collection of all annual fees due by the members of the profession to this Council, making use of such means as may be necessary to effect the very earliest collection of the same."—Carried.

Moved by Dr. CLARKE seconded by Dr. BERRYMAN, "That the thanks of this Council are tendered to Robert McKim, of University College; for the efficient manner in which he has served the College at its written examinations for several years past."—Carried.

The recommendation of the Education Committee to make the examinations primary and final, instead of annual, as at present, caused a lengthy discussion; but it was ultimately adopted, with some slight modification as to those who have already passed their primary.

A vote of thanks was passed to the Mayor and Council of Toronto for the use of the City Hall, and also to the Corporation of Kingston for a similar courtesy.

The following are the names the Board of Examiners appointed for the current year: Dr. Roberson, Medicine; Dr. Thorburn, Midwifery; Dr. Sullivan, Anatomy; Dr. Stevenson (Strathroy), Materia Medica; Dr. Poole (Lindsay), Physiology; Dr. Malloch, Surgery; Dr. C. T. Campbell; Med. Jurisprudence; Dr. D. Clark, Chemistry; Dr. Adams, Toronto, Homœopathic examiner.

The Finance Report, which was read and adopted, recommended that the assessment be as heretofore, viz., \$1 on each registered practitioner; that examiners be paid \$100 and travelling expenses for their session; also, that the examiner in anatomy receive an additional fee of \$50.

Moved by Dr. W. CLARKE, seconded by Dr. LOGAN, "That the Council feel great pleasure in expressing their thanks to our President for his urbanity of manner and the kindness which he has extended to the members during the past session."

Dr. Macdonald briefly returned thanks, and the Council adjourned at 2 p.m., to meet again on the call of the President.

Selected Articles.

POST PARTUM HEMORRHAGE INDEPENDENT OF THE PLACENTAL SITE.

Dr. Richard B. Maury, of Memphis, Tenn., reports the following interesting cases of extra-uterine post partum hemorrhage in the Transactions of the Tennessee Medical Society.

Leishman, in his admirable system of Midwifery, recognizes but three causes of hemorrhage after delivery, to-wit: Uterine Inertia, Fibroid Growths, and Inversion of the Uterus.

According to the same author, "the object which, before all others, we have in view, is to promote uterine contraction, and if we fail in this we fail utterly." This is the substance of all obstetrical teaching upon the subject of post partum hemorrhage. The etiology and the treatment both refer exclusively to the placental site as the source of the hemorrhage.

There is, however, a class of cases to which this treatment is not applicable, and a form of post partum hemorrhage against which it is of no avail. This hemorrhage does not come from the cavity of the uterus, and it is entirely independent of the placental site, but it is not for that reason less serious at times than the usual form. It is, really, an extra-uterine hemorrhage. In January, 1878, I reported to the Shelby County Medical Society two cases of this form of hemorrhage. In the present communication I propose to bring forward all my own observations, and also the reported observations I have been able to find by others.

In bringing the subject fully before the Society, I would enumerate, in addition to the placental site, the following sources of serious and occasionally even fatal hemorrhage.

1. Lacerations of the cervix uteri, not involving the body or extending beyond the cervico-vaginal junction.
2. Lacerations of the walls of the vagina, or rupture of dilated veins at some portion of the vaginal walls.
3. Lacerations of the perineum.
4. Lacerations of the orifice of the vagina, especially in the neighborhood of the clitoris and vestibule.

While every well-informed gentlemen present knows that such injuries to the parturient canal are exceedingly common, and while some may have witnessed serious hemorrhage from these sources, I do not think it is generally understood by the profession that a woman may die after the birth of her child from loss of blood, except it come from the uterine cavity. If, then, the physician approaches the lying-in woman impressed with the idea that the only source of dangerous hemorrhage is the cavity of the uterus, and that his main and

indeed only reliance is firm uterine contraction, he may lose his patient by an over-sight.

With a view of showing that the sources of hemorrhage just mentioned are real, and that the dangers therefrom are not merely theoretical, the following clinical evidence is offered :

1. Under the head of Hemorrhage from Laceration of the Cervix, a case which happened in my own practice in August, 1877, is presented and given here in the words of my report before the Shelby County Society.

"The patient had a rapid labor, and the child was born as far as the hips before my arrival. Having removed the child and administered two drachms of Squibb's Extract of Ergot, I attempted to expel the placenta by the method known as Crede's. There was no hemorrhage at all, and I was disposed to give the uterus full time to empty itself. After continuing the usual manipulations for fifteen minutes without success, one finger was passed into the vagina to see if the placenta could be reached. I found that it could not, and at the same time discovered a very marked laceration of the cervix on the left side. Pressure was continued over the uterus for fifteen minutes longer, and efforts made to induce it to throw off the after-birth. The patient meanwhile was quiet and comfortable, and there was no hemorrhage. The uterus was firmly contracted, but all efforts to expel the placenta failed. At the expiration of thirty-five minutes from the delivery of the child, the patient's position was changed so as to bring the hips to the edge of the bed. Passing the hand into the vagina, and two fingers into the womb, I reached the insertion of the cord, and hooking the fingers into the placenta at this point, dragged it down so that a portion of its edge came without the os. While I was doing this the patient made a violent effort to expel it, lifting her hips entirely from the bed. Hooking my fingers now into the edge of the placenta, it was easily removed, the patient again exerting herself more violently than before. The uterus was now firmly contracted, but blood flowed freely from the vagina in a continuous stream. It was bright red blood. The perineum was uninjured, the vagina was not torn, and it was clear to me that the lacerated cervix was the source of the hemorrhage. The laceration, moderate at first, had been increased by the violent expulsive efforts of the patient, when the circular fibres of the cervix were in a state of contraction, so that one or more arteries were involved in the rent. Grasping the uterine body in the left hand, so as to steady it and insure its firm and continuous contraction, I passed pieces of ice into the vagina in contact with the cervix. Giving this plan a fair trial and finding it accomplished nothing, and seeing that the stream of blood continued unabated, and the patient was rapidly growing pale and faint, I passed a wad of old linen up into the anterior cul

de sac of the vagina, and by bimanual pressure brought the torn edges of the cervix in contact and kept them firmly compressed. In a few minutes the hemorrhage was checked, and in a little while it ceased. The pressure was kept up for half an hour, and the compress, after the lapse of an hour, was removed from the vagina.

If the source of the hemorrhage had not been discovered here, the case would soon have terminated fatally. As it was, the patient was blanched, greatly depressed, and made a narrow escape from death. The pulse ran up to 140 per minute, and was exceedingly feeble. Within forty-eight hours febrile symptoms appeared and lasted for ten days, in consequence of a cellulitis on the left side, induced doubtless by the laceration."

This patient ultimately made a good recovery. The occurrence of the laceration was proved by an examination made in March, 1878.

II. In illustration of the second sub-division of my subject—Laceration of the walls of the vagina, or rupture of dilated veins at some portion of the vaginal walls, the following case is presented :

Four years ago I was asked to attend, in her approaching confinement, a lady who suffered from enormously dilated veins of the right leg and thigh, and corresponding *labium majus*. Upon examination, I found that the varix of the labium extended along the right vaginal wall quite to the cervix uteri. The formation of a thrombus in the labium during labor seemed very probable, from the greatly enlarged condition of the veins, and preparations for this accident were accordingly made.

Labor came on in due time, the child was soon born, and in a few minutes the placenta followed. The uterus contracted firmly and steadfastly, but very free, continued and alarming hemorrhage occurred. I examined for rupture of the labium but could discover none. Examination of the vaginal walls by touch was unsatisfactory in the extreme. Speculum examination under the circumstances was impossible.

The vagina was packed with ice, but the hemorrhage continued unabated. Compresses of cotton, saturated with iron, were then applied against the vaginal walls. These checked the flow, and in little less than an hour it was completely controlled. During all this time the womb was firmly contracted.

There can be no reasonable doubt that this hemorrhage came from the rupture of dilated veins in the vaginal wall, and as every preparation had been made against hemorrhage beforehand, no serious results ensued.

But it must be remembered that a dilated condition of the veins of the walls of the vagina is sometimes found in women who have no varices of the labium or other external parts. In proof of this, the following evidence is adduced :

In November, 1877, Dr. Paul Budin, of Paris,

in a communication made to the Obstetrical Society of London, pointed out that profuse and even fatal hemorrhage may take place from the vagina after parturition, and that the patient's risk is much increased if this be mistaken for *post partum* hemorrhage.

Dr. Budin reported three cases, and stated, that while lesions about the clitoris and perineum were easy to detect, that the bursting of distended veins in the walls of the vagina was less easy to diagnose.

III. In illustration of the dangers of hemorrhage which may arise from laceration of the perineum, I will report a fatal case which happened under my own observation eight years ago. The patient, a primipara, twenty-seven years of age, after a tedious labor, was delivered by her attending physician, with the forceps. As sometimes happens in the most skillful hands, a laceration occurred through the sphincter and into the rectum. The placenta was expelled almost simultaneously with the child. During the delivery, I was at the patient's side, with my hand upon the womb. As the child was expelled, I followed it down with gentle pressure, and this pressure was continued after the expulsion of the placenta. The uterus was unusually small and well contracted. Its contraction was continuous, as I well know, for I did not leave the patient's side, nor remove my hand from the abdomen. Imagine, then, my astonishment, after a little while, to see her face blanched, and to feel my knee, which was resting on the bed, wet with blood. She said nothing, for she had not fully recovered from the chloroform. The physician in charge at once used ice in the vagina, and the current of blood was, in a little while, stopped, but not until the patient was pulseless. All attempts to rally her failed. In two hours she was dead from loss of blood.

In this case, special attention was drawn to the persistently contracted state of the womb. It was observed and remarked upon, not only by the two physicians in attendance at the time of the delivery, but by two others who had been called in during our efforts to revive the patient. This firmly contracted state of the organ continued up to the last moments of her existence.

I was perfectly satisfied that the hemorrhage could not have come from the cavity of the womb, for its contraction was as firm and complete as it is ever observed to be after labor. The perineal laceration was a bad one, extending fully two inches up the rectum. This was the source of the bleeding, which went on without our knowledge for fifteen or twenty minutes after the delivery of the placenta, while the patient was still under the influence of chloroform.

Before the occurrence of this case, I had never suspected that such a hemorrhage could come from such a source.

Examining the recorded experience of others upon this subject I find very little. Obstetrical text-books say nothing, or almost nothing. In the Transactions of the New York Academy of Medicine for 1861, there is a paper by Dr. B. Fordyce Barker on "Anesthetics in Labor." Speaking of a laceration of the perineum which happened in one of his forceps cases, while under the influence of chloroform, Dr. Barker says: "I may be pardoned for mentioning one extraordinary incident connected with this case. The patient came near dying from hemorrhage, but not from the uterus, but from the lacerated vessels of the perineum." In Dr. Barker's work on "The Puerperal Diseases," published in 1874, in the chapter on "Lacerations of the Perineum," there is a report of four cases occurring in Bellevue Hospital, in all of which the laceration was accompanied by troublesome hemorrhage. In two of these cases the hemorrhage was serious, amounting to a quart in one case, and to two quarts in the other.

In Dr. Barnes' work on Obstetrical Operations, under head of Secondary Puerperal Hemorrhages, it is stated that "laceration of the perineum may become a source of secondary bleeding." It is not intimated by this author that hemorrhage from this source may be fatal or even dangerous. Had I then known it might be so, we would not have rested in the blissful feeling of security that all was right because the uterus was well contracted.

IV. The fourth and last source mentioned from which hemorrhage may arise after the birth of the child, is the vaginal orifice. This orifice, anatomically speaking, and the obstetrical perineum have no connection. "They are distinct parts, removed from one another by the structures forming the fossa navicularis," to use the words of Dr. Matthews Duncan, who brought the subject very clearly before the Edinburgh Obstetrical Society in 1876. According to this writer, the vaginal orifice may be described as embracing those structures which lie external to the urethral orifice in front, the insertion of the hymen posteriorly, and the nymphæ laterally.

The lacerations of the vaginal orifice, according to Dr. Duncan, are inevitable in the primipara, and the lacerations of the anterior portion of this orifice often produce hemorrhage, which is occasionally, but rarely, even fatal, especially if the tear extends to the clitoris.

At a meeting of the London Obstetrical Society, in Nov. 1877, Dr. Edis, of the Middlesex Hospital, reported a case of hemorrhage, which continued for eight hours after delivery. The patient was blanched, and the obstetric resident, having administered ergot in vain, was at a loss what to do. Upon examination, a rent an inch long was found under the clitoris, and an artery spouting. He failed to arrest the hemorrhage by torsion, because of the bruising of the tissues. He then plugged

with perchloride of iron, and applied pressure by means of T bandage which was kept in place thirty-six hours, a catheter being left in the urethra.

In answer to a question about the sloughing which perchloride of iron might produce, Dr. Edis replied that it was a question of saving life, the sloughing which followed was trifling in amount.

1st. While giving special prominence to the rule to secure firm and continued contraction of the uterus in all labors, the obstetric practitioner should always have before him the possibility of serious hemorrhage, *post partum*, from sources outside the uterine cavity.

2d. Whenever a free and continuous hemorrhage arises after the delivery of the placenta, with the uterus so firmly contracted as to forbid the introduction of the hand into its cavity, it may safely be assumed that the source of the bleeding is not the uterine cavity, but one of the four points enumerated in this paper.

3d. The precise point of hemorrhage should be ascertained by speculum examination, if practicable; but as such a procedure is often utterly impossible under the circumstances which attend *post partum* hemorrhage in private practice, the chief reliance of the physician should be styptics and pressure to the cervix and vaginal walls; and, in the meantime, close watch should be kept upon the womb, to make sure that its contraction is permanent.

INJECTION OF CARBOLIC ACID IN PILES.

The following is from Dr. Weir's report on surgical procedures read before the Therapeutical Society (*New York Medical Journal*).

The application of nitric acid to the surface of the pile, as suggested by Houston, and lately revived by Bilroth and used by the latter surgeon to a wider extent than in previous times, is sometimes quite painful, and, when resorted to injudiciously or too freely and too frequently, even dangerous. The use of ergot in the bowel as an enema is only a temporary and imperfect relief; hence the desire to be possessed of some means to help in the management of such cases, and the acceptance of the report of two intelligent friends who informed me that they had been cured of hæmorrhoids at the hands of a certain irregular practitioner by the painless injection of carbolic acid into the substance of the protruded parts.

Believing that the painless nature of the little operations, for they were repeated three times respectively, to which they were subjected, was due to the weakness of the solution used, and also knowing that the employment of stronger solutions had, in the experience of Western surgeons, been followed at times by unpleasant inflammatory results, and occasionally by dangerous consequences,

I determined to resort to the use of such a weak solution in the next case that presented itself to me. Therefore, in the spring of 1877 I resorted to it with success in a single large venous hæmorrhoid, injecting a 1 to 20 solution, with a few drops of glycerine in the mixture, by inserting the point of a fine hypodermic needle into the centre of the tumor, and forcing in gently some ten or twelve drops of the fluid, until the pile was slightly distended. A trifling smarting followed, which passed off in less than three minutes. The patient went about his business the same day, had a little tenderness at the next day's evacuation of the bowels, and ten days afterward, the pile having shrunk one half, a second injection was made, which completed the cure.

A second case occurred shortly after this in an elderly lady of sixty, who had several large piles protruding from the anus, and which at times bled quite freely. In August, 1877, two of these were injected with a solution of 1 to 10 (made by mistake of this greater strength), with the glycerine added as before. A little sharper smarting followed, with an increased soreness the next day. August 14th, the previously injected piles had very decidedly shrunk. Two more were injected in the same way by a 1 to 20 solution, and again, on the 23rd, a remaining pile and a portion of one of the first attacked were injected for the third time. The protrusions steadily shrunk, and she soon thereafter left the hospital cured. She was seen several months later, and only one or two shriveled tabs marked the remains of the hæmorrhoids.

The injection of weak carbolic solutions is, however, I think, a means that can be safely employed in completely internal hæmorrhoids, or those that are more or less continuously protruding from the anus. In the last two cases, a solution of 1 to 30, without any glycerine, was used, and it appeared to answer as well as the 1 to 20 solution. It is, in addition, a strength that admits of perfect solution of the acid; any cloudiness of the fluid or appearance of undissolved globules of the acid should cause its rejection. Care should also be taken not to insert the needle too close to the base of the pile.

It is conceded that the number of cases presented is too few to enable any opinion to be pronounced upon the plan proposed, and they are brought forward mainly in the hope that a further test of the use of carbolic acid in the treatment of hæmorrhoids may be had, and a judgment of its merits obtained, separate from that given respecting the use of the stronger or concentrated solutions of the same substance.

Prof. Roberts Bartholow, of the Medical College of Ohio, has been elected to the vacant chair of materia medica and therapeutics in the faculty of the Jefferson Medical College of Philadelphia.

HYSTERICAL MANIA.

The following is by Dr. Broon, in the *Brit. Med. Journal*, Feb. '78 :—Hysteria, in its many and varied forms, is one of those reflex nervous phenomena—or, according to Aitkin, “a complex morbid condition of all the cerebral functions”—which the practitioner is generally quick in recognizing when it occurs under ordinary circumstances, and presents the usual diagnostic symptoms; but when it assumes exceptional phases and latent forms, such as simulating other diseases, he may either suspect, or doubt, or even altogether fail to recognize, the existence of the real malady under which the patient may be suffering.

Without going into the subject of the theory of reflex action, of cause and effect, or of the various delusions under which some of the subjects of this disease occasionally suffer—with all of which my fellow practitioners are accustomed to deal—I shall at once proceed to give a general outline of a fairly typical case which came under my care a few years ago; the heading or general title indicates the disease it chiefly simulated.

My patient was a lady of about twenty years, bilio-nervous temperament, and slight *physique*. So far as I could ascertain, her general health had been good up to the time of attack. The immediate or exciting cause was the sudden death of a near and dear relative. When I was called in to see the case, I was informed that about three weeks had elapsed since the attack commenced, during which time she had been attended by three other practitioners, all of whom pronounced her to be of unsound mind, and recommended her being removed to an asylum for a time; the chief difficulty about the treatment of her case being her obstinate determination to take neither medicine nor food, as well as her having to be almost constantly restrained from committing acts of violence, indelicacy, and immorality. I found her being forcibly held by three or four attendants; and when I approached and spoke to her, she kicked and spat at me, and refused either to answer questions or obey commands. Her expression was wild and vacant, her pulse weak and quickened; the temperature, defæcation, and micturition were normal, but the last menstruation was deficient.

Having obtained full permission to treat her as I thought best, and knowing how opposed all her relations and friends were to having her taken into an asylum, as well as her own opposition to taking anything *per os*, I determined upon treating her case solely *per rectum* and skin, till it became preferable *per viam naturalem*. Accordingly, I had her placed and held down upon the bed, while I administered a proportionately large dose of the hydrate of chloral, bromide of potassium, and aromatic spirit of ammonia, in milk; this was repeated night and morning, alternating the milk with strong

essence of beef, for four or five days; and on or about the third day, I painted over nearly the whole of the dorso-lumbo-sacral regions with the ordinary blistering liquid of the *British Pharmacopæia*, keeping the surface irritable for some days by applying savine ointment. The vesication was perfect, the amount of serum abundant, and the subsequent counter-irritation considerable. The daily dressings and enemata soon became distasteful to her in many ways; and on or about the fifth or sixth day, I found her quieter, more rational, and not offering much opposition to swallowing food and medicine. After this she made rapid progress, took food naturally and willingly; the vesicated spinal surface was allowed to heal; and she was considered convalescent about the ninth or tenth day. Subsequently, she took walks daily, became courteous and affectionate towards those around her, was sent away on a visit to some relatives at a distance, returned home in about a month, and continued to be in even better health than before the attack.

Now the maxim to be deduced from this case, as representing a class, is just this; that whenever we are called upon to treat a patient who refuses to allow the remedies to be administered in the ordinary way, and that without reasonable cause or excuse, the practitioner should seek to devise an extraordinary way, provided it be likely to aid or accomplish early convalescence; and further that, when the patient is of the gentler sex, and between the periods of puberty and climacteric, and the symptoms are not clearly referable to any other disease, hysteria in some form should be always suspected and sought for.

MEMBRANOUS LARYNGITIS.

The following cases are reported in the *Brit. Med. Journal*, April 5, 1879 :—

CASE 1.—Under the care of Dr. Eustace Smith. Elizabeth C., a well-nourished child four years old, was admitted on September 25th, 1878, with distinctly stridulous breathing, and well-marked recession of the walls of the chest and cyanosis. There was distinct false membrane on the pharynx and one tonsil, while the glands under the jaw were enlarged. The child was restless, and struggled for her breath. Four days previously, she had become a little hoarse; two days later, breathing became stridulous, and it became urgent shortly before admission. Chloroform being given, the trachea was opened above the thyroid, the incision extending into the cricoid, the wound was dilated, and then a thick piece of membrane, one-and-a-half inches long, and presenting a cast of the trachea, was expelled. The trachea was then cleansed with a feather passed through the wound and from the glottis. A large silver tube was inserted, and the

child was placed in a steam-tent, the steam being impregnated with carbolic acid ; subsequently, solution of thymol was substituted. The tracheal tube was frequently cleaned with a feather dipped in solution of bi-carbonate of soda (ten grains to an ounce), while at intervals the spray of the same solution was inhaled, with the object of partially dissolving the diphtheritic membrane and aiding its expulsion. There was no albuminuria ; the lungs were almost clear, and remained so ; the temperature varied from 100 to 102 deg. Fahr. A mixture of iron and quinine was ordered, with half a teaspoonful of brandy every two hours.

The next day, the child was quite comfortable, and took food well. Much viscid mucous and some membrane were expelled through the tube, which was frequently cleaned.

September 28th.—Vesicles appeared around the wound, and resulted in distinct white patches of membrane. Considerable inflammatory œdema of the neck and upper part of the sternum followed ; this was painted with a solution of liquor ferri perchloridi, and subsequently a mixture of liquor plumbi subacetatis and milk was applied, and the swelling subsided.

October 4th.—The tube was removed for a time, and she could breathe freely. Convalescence proceeded favorably, and she was discharged in good health on December 1st.

CASE II.—Under the care of Dr. H. Donkin. Theodore R., a rather fat child, two and a quarter years old, was admitted on September 25th, 1878. He was struggling for breath ; the face was flushed, and expressed great distress ; there was a frequent croupy cough ; the fauces were inflamed, and the tonsils swollen, presenting distinct white patches of membrane. Inspiration was prolonged, with stridor and recession of the chest ; respiratory sounds were feeble over both bases, with impaired resonance on percussion. Temperature 100 deg. Fahr. ; pulse 128, weak. He had been attacked with hoarseness of voice on September 19th, and respiration became gradually more embarrassed till his admission. Smells from the drains had been noticed at home. Chloroform being administered, tracheotomy was performed with incision of the cricoid cartilage, and the same precautions as in Case I. A large cast of the trachea was extracted from the wound ; immediate relief followed, and the patient was placed in a steam-tent. The after-treatment was conducted as in the preceding case. The urine contained one-sixth of albumen.

During the next few days, he had some violent fits of coughing after the soda-spray, with expulsion of membrane ; one piece was one-and-a-half inches long, and appeared to have come from the bifurcation of the trachea.

September 28th.—Coarse *râles* were heard over both lungs ; the edge of the wound was covered with white diphtheritic exudation ; membranes and

some blood-stained mucus were discharged from the wound. This continued occasionally till October 9th.

October 11th.—There was no albuminuria. He could breathe without the tube during the day, but dyspnoea came on during sleep, necessitating the continued use of the tube. There seemed to be some paralysis of the laryngeal muscles ; this was only temporary, and did not extend to other parts. He regained strength, and was dismissed Jan. 8th.

REMARKS.—These cases were treated on the principles advocated by Mr. R. W. Parker in his paper, read at a recent meeting of the Royal Medical and Chirurgical Society. Each case appeared to be one of well-pronounced diphtheria, and their recovery may seem some encouragement to the early performance of tracheotomy, combined with careful after-treatment.

CASE III.—Under the care of Dr. H. Donkin. Mary R., aged three months, was admitted on September 30th, 1878. She was a fairly well-nourished child, with marked laryngeal stridor, and the aspect of great distress ; the lips were bluish ; there was considerable œdema and redness of the submaxillary region, due in part to the previous application of sinapisms. No membrane was seen on the fauces, but the examination could not be satisfactorily made. She had suffered from cough for three weeks, but the urgent symptoms were of only twelve hours' duration. There was no history of bad hygienic conditions. Chloroform being administered, the high operation was performed ; some little difficulty was experienced in performing the operation, but there was not much bleeding. Some shreds of membrane were removed, and a large silver tube was inserted.

October 1st.—The child seemed relieved and better ; pulse small and rapid ; temperature 105 deg. Fahr., with signs of pneumonia over both bases. The tube was changed, some membrane was extracted, and there was a free discharge of mucous from the wound ; there was no lividity. Death occurred suddenly at 2 p.m.

Necropsy.—False membrane was found behind the posterior nares, none on the tonsils ; small shreds could be peeled off the laryngeal mucous membrane ; none was found in the trachea, but its mucous membrane was reddened. At the bifurcation of the trachea, and in each bronchus, were patches of membrane extending into the secondary tubes. Both lungs were partially pneumonic. The right side of the heart was distended with firm clot, extending through the tricuspid orifice.

REMARKS.—The age of the child, and the occurrence of pneumonia, left but little hope of a successful issue. Improvement occurred after the operation, and the sudden death appears to have been due to clotting on the right side of the heart, illustrating the danger of delay in performing the operation.

UTERINE POLYPI AND FIBROIDS.

Dr. Caldwell, in the *Chicago Med. Journal*, gives the following notes from Berlin:—

I saw Prof. Langenbeck operate on a woman for the removal of a uterine fibroid polypus that had descended into the vagina and filled this organ so completely that the evacuation of both the rectum and bladder was completely obstructed.

The growth was so large that he was unable to pass the *écraseur* over the entire mass to its cervical attachment, and hence he had to pass the chain of the instrument around its lower segment, and remove it in three separate portions.

The last was so large that he had to extract it with a pair of obstetrical forceps. He said: "Whether these growths be solid, soft or cystic, there are only three modes of removing them that I recognise as proper to adopt, and these are, the knife or scissors, the *écraseur* and the galvano-cautery. When they are attached high up in the uterus, I do not like the galvano-cautery, for the reason that you can never be really certain what you are burning, and you may destroy tissues that will lead to disastrous consequences."

The use of the ligature for the removal of these foreign bodies he especially condemned. In the early years of his professional life, he had seen two patients die of septicæmia following the removal of a uterine polypus in this manner.

We must remember, in all our operations upon the uterus, that although we have to do with an organ that will tolerate a good deal of mechanical violence, that we have also to do with a mucous surface that will the most rapidly absorb effete matter of any tissue in the entire body; and that when a polypus is ligated it soon becomes a putrid mass, from which the whole economy may become rapidly contaminated. The twisting off of polypi he also considers a bad practice, and has seen at least one case where the extensive laceration of the mucous surface of the womb attending the operation resulted in a mentritis from which the patient died.

Prof. Schröder had in his wards at the *Charité* this winter some interesting cases to illustrate his management of different forms of uterine fibroids. In our treatment of these cases, he says, we should remember one fundamental rule, which is, that in the history of every such case there usually comes a time when the morbid growth will cease to increase in size, begin perhaps to undergo a retrograde metamorphosis, and become in time entirely innoxious as far as the well-being of our patient is concerned. Directly opposed to this are the facts connected with the history of most cases of ovarian cysts. Their tendency is ever to increase in size, and their removal will sooner or later be imperatively demanded. Keeping these facts in view, we seize upon the most appropriate

time for our operative interference. In the management of a case of uterine fibroid, he says, investigate your case accurately as to this fact. Is its attachment situated upon the lining membrane of the *body* of the womb, or upon the *cervix* uteri. If it have its origin from the body of the womb, you are to consider it as a *noli me tangere*, unless it be the direct cause of symptoms that are likely to prove dangerous to the life of the woman. On the other hand, if it spring from the cervix uteri, you may operate on it in almost any way with comparative safety.

To arrest the hæmorrhages that accompany these cases, he swabs out the inner surface of the womb with either the tincture of iodine or a solution of one of the astringent salts of iron.

A question in which I have been greatly interested, and upon which I have interviewed everybody, is the value of the hypodermic injection of ergotine in the treatment of uterine fibroids.

Prof. Schröder says that he has often seen cases greatly benefited by this treatment, but has never seen a case entirely cured by it. By its use the hæmorrhage will often cease, and the tumor become greatly lessened in size. To test the remedy he says you must use at least one hundred injections. He makes them into the cellular tissue of the abdominal walls, and repeats them as often as every alternate day. As so protracted a use of an agent that is often very painful, taxes to the utmost the patience of both physician and patient, few carry it out thoroughly.

Braun, of Vienna, makes these injections into the outer aspect of the thigh, where they are better borne. He uses also Bourbellon's ergotine, and none other, as he says you never have an abscess follow its use. Its name, I believe, is derived from a Swiss chemist who manufactures it.

Dr. Routh, of Dorset House Hospital for Women and Children, in London, is the greatest enthusiast of any I have met in Europe as regards the efficacy of his treatment of intra-uterine fibroids. His plan is to first puncture the tumor by passing a sharp pointed instrument into it about the size of a number six English catheter. The depth to which he makes this puncture will depend upon the size of the tumor, but will usually be to about one-half of the thickness of the growth. After making his puncture, he introduces into the hole thus made a wire of nearly the same size, heated to a red heat. He claims that in this way you can excite an inflammatory change in the body of the fibroid that will lead to its absorption, and that too without any of the dangers of a septic process following the procedure, which would be likely to occur if you attempted to accomplish the same object in any other way. He says that he has never failed to benefit a case that he has treated in this manner.

MONO-BROMIDE OF CAMPHOR IN INSANITY.

Dr. Mann, late Medical Superintendent New York State Emigrant Insane Asylum, (*Detroit Lancet*) has been using this remedy in mental diseases, more especially in cases of hysterical mania in women, with the happiest results. From a long experience with its use, it has proved to be an excellent sedative of the cerebral system, and also, at times, as an hypnotic. In cases of dipsomania it has proved a very valuable adjunct to the other treatment pursued, quieting the restlessness and excessive nervousness much better than any of the other bromides. It diminishes the number of pulsations of the heart, and lowers the temperature of the body. With the exception of cases of dipsomania, the writer has used it with more success with females than with males. In one very violent case of hysterical insanity, with nymphomania, in a young unmarried lady of twenty years, a most satisfactory cure was obtained from the use of the mono-bromide of camphor, in doses of 4 grains, in capsules, three times a day, with warm baths, and the use of the constant current as central galvanization. Another case—a young lady of twenty-two years was admitted, with acute mania of very violent type, from no assignable cause. Upon her admission, the tongue was furred; the bowels constipated; head hot; pupils widely dilated. She had hallucination of sight and hearing, and delusions relating to her lover. She destroyed everything within her reach, and evinced great muscular strength, which rendered her a formidable patient to deal with. She was put in warm baths, and chloral and morphine were administered, but she did not sleep; all ordinary treatment proving unavailing, and a general hyperæsthesia, inducing the patient to tear her clothes off, it was determined, as an experiment, to put the patient on the mono-bromide of camphor. The doses employed were at first two grains, three times a day, and subsequently four grains, three times a day, all other medicine being, for the time, abandoned. After the first few doses, the temperature and the frequency of the pulse were lessened, and the pupils were reduced to their normal size. The patient soon began to sleep and eat, and the hyperæsthesia of the body disappeared, so that she stopped tearing her clothes off. The intense muscular restlessness, which had previously characterized her, also disappeared. The mental faculties improved, and at the expiration of thirteen weeks she was discharged, perfectly well, and has remained so up to the present time. In this case, the remedy was persisted in for over two months. In some cases where the mono-bromide of camphor has been used, Fothergill's solution of hydro-bromic acid has been used in connection with it, and always with the best result.

COMPLIMENTARY DINNER TO PROF. GROSS.

Professor S. D. Gross having completed the fiftieth year of his professional career, a complimentary dinner was given to him by his colleagues at the St. George's Hotel, on Thursday, April 10th. A large number of invitations were issued, and the profession in different parts of the country was represented.

In reply to the toast of our honored guest he said:

"In taking a retrospect of my life I have no regrets. I console myself with the belief that I have not lived wholly in vain, and that, while much remains undone that might and should have been done, it might be reasonable to suppose that at least some of the seed which I have sown have produced good fruit. It is not given to every man to be a Harvey, a Hunter, a Jenner, a Bichat, a Morton, a Paget, or a Virchow. 'By the grace of God,' says St. Paul, 'I am what I am.' No man can rise superior to himself. What is fame? Is it a phantom, or is it a reality? Alas! too often the former, too seldom the latter. Few medical works, however meritorious, outlive their authors, and no sooner does a teacher retire from the field of his labor than his pupils worship other gods. Happy, thrice happy, is he who in the evening of his life, as he reviews his past conduct, can say to himself, 'I have been true to my profession. I have been ambitious of its glory; I have done nothing to tarnish its escutcheon.' As I look back through the dark vista of half a century, what memories crowd upon my mind! Kingdoms have crumbled to pieces; new dynasties have sprung up; the world has been drenched in blood by contending armies; millions of human beings have been swept away by pestilence and famine; civilization, commerce, the arts and sciences, religion, and education have found new homes; the uttermost parts of the globe have been explored by intrepid navigators and adventurous travelers; time and space have been annihilated by the telegraph; and the employment of steam and the application of machinery have changed the occupations of man, and thrown upon us a surplus population which the wisest statesmen know not how to dispose of. The art and the science of medicine have been completely revolutionized and enriched to an extent which fifty years ago would have baffled the wildest conceptions. During these vast changes, so pregnant in beneficence to mankind, America has not been idle. If she had contributed nothing more to the stock of human happiness than anæsthetics the world would owe her an everlasting debt of gratitude. The fanciful and mischievous speculations which characterized medicine in the days of my youth have been replaced by sober facts, founded upon more carefully conducted observa-

tions and more rational deductions. In preventive medicine a new field has been opened, which, if properly explored and cultivated, as it seems destined to be, will add millions of years to the life of the human race. Oh for a glance at the profession a century hence, when man, enlightened and refined by education, and redeemed from the thralldom of ignorance and superstition, shall reflect more perfectly than he now does, the image of his Maker!

AN OBSTETRIC WARNING.—I publish the following cases as a warning to brother professionals engaged in midwifery practice: In September, 1878, I was sent for to a woman who had been in labor with her first child for four days. A friend was staying with me who was going to attend to my work during my three week's holiday, and we went together to see the case. We found the woman frightfully exhausted, with a small fluttering pulse, and a child, that had been dead at least a week, presenting normally, but the head tightly impacted at the outlet of the pelvis. All pains had left her for many hours, and the stench from the foetus was horrible. We gave ergot, and delivered her with forceps without much difficulty. The child was decomposed, and the placenta also, but not so far advanced. My friend told me on my return home (I left the next day) that the woman never rallied, but died with pyæmic symptoms. Five weeks after this case I had occasion to use the same forceps on a woman with her second child. (I had delivered her with forceps as a primipara.) She had a rigor on the seventh day, and died of puerperal peritonitis. Undoubtedly we ought to have thought of disinfecting the forceps, and I would suggest that they should always be so cleansed after every case in which they are used.—*British Medical Journal*.

PARAPLEGIA, WITH GREAT MUSCULAR RIGIDITY (ERB'S SPASTIC PARALYSIS?)—The *Glasgow Medical Journal* of February, '79, contains the following.—D. M., aged 10, admitted 6th August, 1878, has suffered from loss of power in the lower limbs since the preceding January. The boy has evidently a very decided strumous taint, as is evidenced by cicatrices and scrofulous sores on various parts of the body, especially about the jaw and right elbow joint; the latter has been excised. The paralysis seems to have been developed rather suddenly, patient having staggered and fallen while on the street; he continued to move in an imperfect manner for a few days, and then lost almost all control over the movements of his legs in walking. Sensation seems to have been deficient in the legs at an early period of the disease, to the extent that he could endure to be beaten with a rod or pricked with a pin without any evidence of pain being thereby elicited. He had never any pains in the limbs, and so far as can

be got from him, there has never been any sensation at all similar to formication or tingling. The upper limbs are entirely free from anything abnormal. On admission, the patient was totally unable to stand or even to walk, but, at the same time, he could move, especially the right leg, and to a less extent the left, pretty freely in bed. With this paralysis there was a very marked degree of muscular rigidity, the sural muscles were contracted, and the toes pointed downwards; the muscles of the hip and knee were also rigid. Patient sometimes lay with his legs straight, and then there was resistance to flexion at the knee, sometimes he lay with them flexed, and in that case extension was resisted. There was considerable dulling of sensation; he allowed pricking with a needle and pinching without the least wincing. This dulling of sensation involved the trunk to about the level of the nipples. Reflex action was variable. At times tickling of the soles, or pricking, produced no effect, at other times a very distinct contraction. Tendon reflex movements were very marked. A symptom mentioned by Erb was very distinctly observed; when either foot was lifted up by pressure against the ball of the foot, patient being in a sitting posture with the legs hanging down, there was frequently, but not invariably, a remarkable tremor of the limb, due, apparently to sudden contraction of the sural muscles acting on the tendo Achillis, and possibly also of the extensors.

His urine was almost constantly passed, more or less, in bed; and it was quite usual, on his being lifted, for him to let it pass away on the floor. In fact, it required attention to keep him moderately clean and free from bed sores.

The distinctly strumous condition of the patient seemed the guide to treatment, in this case; accordingly, he was put on cod liver oil and compound syrup of the phosphates, and with exceedingly good results. His condition slowly improved, the sensibility in the affected parts gradually returned, he regained to a great extent, the power of his legs, was able to move about quite freely, and had so far control of himself as to be able to carry about one of the ward chairs. There remained, however, a slight dragging of the right leg. The rigidity of the muscles was gone, and the tremor above referred to could not be observed.

"DRUNK OR DYING" is a phrase often appearing in English journals, and under it are detailed cases in which persons in one state have been treated as if in the other. Recently, in our own city, we have learned of a case in which a man was incarcerated in jail for drunkenness, while a *post mortem* examination, held a day or two afterwards, demonstrated a purulent meningitis. To diagnose such cases Dr. McEwen, of Glasgow, gives the following rule: "Any insensible person who,

having been left undisturbed for from ten to thirty minutes, has contracted pupils which dilate when he is shaken, without any return to consciousness, and then contract again, is suffering from alcoholic coma."—*Detroit Lancet*.

ICE IN CROUP.—Dr. J. N. Norris, (*Med. and Surg., Reporter*, Phila.) strongly recommends the use of ice in the treatment of pseudo-membranous or true croup in children, and also in acute laryngitis of the adult:

"I am abundantly satisfied, by ample experience, that we are in possession of no remedy that will meet this indication so surely and so expeditiously as ice, and notwithstanding the apprehensions of the old women, and the condemnation of medical men in high standing, I would now no more think of treating true croup without ice, than of treating a severe attack of malarial fever without quinine.

"Let the little patient's chest be protected by two or three folds of flannel, and let a bladder partially filled with coarsely pounded ice be applied in front of the neck, and retained there closely, and as soon as the ice in the bladder becomes melted, or nearly so, let it be immediately replaced by another which has been prepared beforehand, thus giving no time for injurious reaction in changing the bladders. The ice should be unremittingly applied, till the last vestige of the peculiar metallic or brassy sound is no more to be heard in the cough.

"The employment of ice does not preclude the use of other appropriate measures, as a mercurial cathartic, occasional emetics, *verat. virid.*, *tart. antim.*, etc. Spasm of the glottis being an extremely distressing element in most cases of this disease, the patient should at once be brought fully under the influence of belladonna (evinced by dilatation of the pupils and capillary congestion of the face), and so kept under its influence throughout the whole course of the disease. When we study the physiological action of this medicine in connection with the spasmodic element of croup, the beneficial influence of this drug cannot fail to be seen and appreciated.

"Acute laryngitis is not a very frequent disease in this section. In a continuous practice of over 38 years I have encountered only four well-marked cases. In acute laryngitis we have not the fibrinous deposit, as in true croup, but in its stead, infiltration into the abundant loose submucous areolar tissue about the glottis, and, per consequence, death by apnoea. It is an admitted fact, that the treatment prescribed in standard works for this particular form of croup, and for acute laryngitis, is notoriously unsatisfactory in its results—failure being the rule, success the exception. It is true I have treated but one case of well-marked acute laryngitis in the adult since adopting the ice treatment. In this instance the disease was ushered in with rigor, followed by heat of surface, pulse 135;

tenderness over the *pomum Adami*, complete aphonia, painful deglutition, every movement of the tongue accompanied with pain. Ice in bladders was unremittingly applied to the front of the neck for four days and nights; *cal.*, *tart. antim.*, *verat. virid.*, etc., were used; but without the ice I would have had but little confidence in any treatment. Permit me to say that if I were restricted to the use of but one remedy in these two inflammations, that remedy would be ice, emphatically ice."

OZENA—NEW METHOD OF TREATMENT.—A German writer, Gottstein, considers the origin of ozena as due to a process of atrophy in the mucous membrane of the part, analagous to that in the pharynx, described as rareficient dry catarrh of the pharynx (*pharyngitis sicca*) by Wendt in Ziemssen's *Cyclopaedia*; and he believes that ozena is "a constant symptom of that stage of chronic rhinitis, in which atrophy of the nasal mucous membrane has occurred, and in which, probably in consequence of the destruction of the mucous glands, a diminution and alteration of the secretion takes place in such a way that the product of the latter remains, in consequence of its quick drying up, adherent to the mucous membrane, is not removed by the natural forces, and passes over into fetid decomposition." The remedy which the author recommends consists in the simple occlusion of the diseased part by means of a wad *tompon* (the part having generally been cleaned before), which is to remain about twenty-four hours in the nose. It does not give rise to any troublesome symptoms, the patients feeling, on the contrary, soon very much relieved by it. One side ought to be occluded only at the time, and the other within the next twenty-four hours, whilst the first remains free during that time. The author has obtained excellent results on fifteen patients thus treated within a very short time.—(*London Medical Record*) *Lea's Abstract*.

SUBERINE FOR CHAPPED NIPPLES.—The treatment recommended by M. Brochard, *L'Union Medicale du Canada*, (*Chicago Med. Journal*), for fissured nipples is so simple that it deserves to be popularized. When chaps exist on the nipples, whatever their extent, the nipple should be washed with pure water, and then dried and dusted with suberine, which, as is known, is impalpable cork powder. The author has used it for several years, and prefers it to lycopodium for infants, because it contains tannin, and besides is much cheaper. Over the suberine is placed a piece of gold-beater's skin, cut star-shaped, in the centre of which several punctures are made with a fine needle. Every time the child is suckled, the suberine is washed off with water, and the gold-beater's skin replaced, the child drawing the milk through it without giving pain. When the child is done, the suberine is again applied as before, and so on.

THE CANADA LANCET.

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TORONTO, JUNE 1, 1879.

THE ONTARIO MEDICAL COUNCIL.

The annual meeting of the Ontario Medical Council which was held in Toronto on the 13th ult. and following days, was in some respects an improvement on those of former years. This year the members instead of hurrying through their work with almost indecent haste, and leaving a large amount of unfinished business to be dealt with by the ubiquitous executive committee, wisely remained in session part of Saturday and finished up their business before leaving. This we regard as a step in the right direction, and one which we have no doubt will be duly appreciated by the profession at large. The Council cannot afford to have its most important business transacted by the few gentlemen who constitute the executive committee, however experienced and respectable these gentlemen may be, without losing much in the estimation of the profession and the public.

The two most important topics of discussion were, the increase of territorial representatives on the council board, and the discontinuance of the system of annual examinations in favor of a *primary* and *final* examination as in former times. In regard to the former question we have already, in the last issue, expressed our opinion, and we have now only to congratulate Dr. Henwood, the mover of the resolution, upon the success which he has achieved. Though defeated by a small majority he has won a moral victory, and the question of increased territorial representation only remains to be carried in the Legislature. He was opposed, as we predicted, by the school-men and the Homœopaths who stood shoulder to shoulder in the interest of the monopolists, and against the claims of the general profession. Of course we must in all

fairness except the representative of Trinity Medical School, Dr. Geikie, who fought valiantly in the interests of the territorial men. The yeas and nays on this vote will be found among the proceedings in another column. The increase of the territorial representatives, is the only means by which the ring which now rules the council can be broken up. The territorial men have no interests to subserve but the general good of the profession, and will not be easily led into any intrigues for the carrying out of the wishes of any particular individual or class.

The return to the primary and final instead of the annual examinations was, especially under the present circumstances, most judicious. The complicated nature of the work, the large number of students to be examined, the low state of the finances, and the increasing dissatisfaction on all sides, rendered this step almost imperatively necessary. We believe it is the duty of all colleges to hold annual examinations for testing the progress of the students in training, from year to year, but to insist upon annual examinations before the licensing board was but to increase the expense of the examinations without in any way benefiting those who presented themselves. As no very high standard was exacted, and no competition encouraged, it was simply offering the students an easy way of squeezing through with a few subjects each year. The only strong argument in favor of the annual examinations was, that the dread of the examination at the end of each term kept the student at his work, and prevented him from idling his time. We believe, however, that no amount of terrorism of this kind will have any effect upon a student who is disposed to idle away his time, but on the other hand it fosters a system of cramming up a certain amount of work each year, sufficient to enable the candidate to squeeze through the examination hall.

In the matter of the appointment of the examining board, Dr. Allison, with characteristic faithfulness to principle, again brought forward his motion relative to the appointment of examiners from among the registered practitioners outside the council, which was defeated. The Dr. has, however, succeeded in forcing upon the council the principle involved, so as to secure the object he had in view, as the members of the board, with one solitary exception, have been appointed this year

from gentlemen outside the council. Dr. Allison, and those who supported him, deserve the thanks of the profession for the determined stand they have taken in this matter.

Another subject of considerable importance brought up at the late meeting, was embodied in the resolution proposed by Dr. Berryman, and seconded by Dr. Geikie, that no permanent officer of the council should be connected with any of the schools, and had special reference to the Treasurer. Dr. Aikins has held the position of treasurer of the council since its inauguration, and has performed the duties of his office, so far as the council is concerned, most efficiently; but it is justly maintained that it gives the school which he represents, an undue advantage, by bringing him, as treasurer, in communication with the whole body of medical students at all periods of their study, from their entrance until the completion of their course, and affords him, or any other school man who might fill the office, abundant opportunity of unduly influencing them, (especially recent matriculants), in the selection of the school at which they are to receive their professional education.

There was not a full meeting of the Council when the resolution was proposed, but the vote recorded, shows pretty clearly the feeling of the council in regard to the matter. Dr. Aikins, after the vote was taken, rose to a question of privilege and stated that of 170 matriculants who had paid their fees at the treasurer's office, he had only received the fees from three. This explanation is, however, very far from satisfactory, for if the fees are not paid to Dr. Aikins they are paid to his son, who is a student of the Toronto School of Medicine, and is not responsible to the council for the use he may make of the position in which he is placed.

THE AMERICAN MEDICAL ASSOCIATION.

The thirteenth annual meeting of the American Medical Association was held at Atlanta, Ga., on the 6th ult. and three following days, under the Presidency of Dr. Parvin. The meeting was not as largely attended as on some former occasions, but it lacked nothing in the interest generally manifested, the character of the papers read, or the outcome of the social element. The President

delivered an eloquent annual address appropriate to the occasion. He spoke of Atlanta, Ga., as being almost entirely exempt from malaria, tuberculosis, or yellow fever. He also alluded to the progress recently made in sanitary science, and the value of an enlightened and thorough system of internal sanitary regulation, and a properly regulated system of quarantine in preventing the occurrence of epidemics, such as the yellow fever scourge.

Dr. Seguin, of New York, presented the report on the metric system, which was adopted, and a resolution was carried declaring that the association shall adopt this system. Dr. T. F. Rochester of Buffalo, chairman of the section on medicine, read an able and exhaustive paper on "Yellow Fever." It was one of the best, if not the best paper read at the meeting. A very able paper on "Sanitary Science," by Dr. J. S. Billings was next read by Dr. Woodward, in the absence of the author from illness.

Dr. N. S. Davis of Chicago moved that the code of ethics be amended prohibiting any physician from teaching or encouraging any student of an irregular or exclusive system of medicine. This motion occasioned considerable discussion. Dr. Dunster of Ann Arbor made a most eloquent and able speech in opposition to the amendment. Several members also spoke to the resolution, which was finally tabled till next year. Dr. Chaille of New Orleans read an interesting paper on "State medicine," in which he recommended among other things that the Central Board of Health should be centered in the American Medical Association. Dr. Gunn of Chicago, chairman of the section on surgery, read an able dissertation on "Pus" which was well received by the association. A considerable amount of interesting and valuable work was done in the various sections, and many excellent papers were read and discussed, which we have not space to particularize. Dr. H. Hutchins and Dr. W. Brodie were appointed delegates to the Canadian Medical Association.

Dr. Sayre was elected President for the ensuing year, and New York appointed as the place of next meeting, on the first Tuesday in June, 1880.

ANÆSTHESIA FROM IODOFORM.

The following peculiar case is translated from *Le Practicien*, 17th March, 1879. M. M. Æt 25, was affected with a suspicious ulceration of the

penis, for which had been prescribed one gramme (15 grains) of iodoform finely powdered, a little to be used as a topical application. The next day early in the evening, as he had not been seen since the previous day, his friends decided on forcing an entrance into his room, where they found him stretched on his bed in a profound sleep. As he did not reply to repeated calls, he was roughly shaken, and after a time they succeeded in awakening him. On perceiving the gleam of the gas, he appeared quite surprised that he should be disturbed so early in the morning. At last after they had explained to him his mistake, on reflecting on what could be the possible cause of so unnaturally prolonged a sleep, he perceived his box of iodoform on his bed, forgotten since the dressing of the previous day, the contents of which had evaporated around him. He had committed no excess the day previous, went to bed at the ordinary time and remembered nothing since then. During the day, the inmates had knocked loudly at his door frequently, but he had heard nothing. Two hours after awakening, following a hearty meal the necessity for which he experienced immediately, his clothes and breath exhaled a very strong odour of iodoform; but beyond a slight giddiness he experienced no inconvenience. This fact is interesting and worthy of note on account especially of the weak dose of iodoform, which, absorbed in minute quantities by the pulmonary mucous membrane produced complete anæsthesia for twenty-four hours, although during the lapse of that time the air of the apartment was largely renewed by an open window. Up to the present, the experiments made on the inhalation of iodoform on different animals have resulted only in a transitory anæsthesia accompanied by exhilarating effects, resembling the symptoms produced by protoxide of nitrogen, but never a profound and long continued sleep.

DEATH FROM SALICYLIC ACID.

Dr. Empis publishes a case, in *La Gaceta Medica*, Lima which is perhaps instructive, in our appreciation of the eulogies lavished by Professor Gee on the above new panacea. The patient was a man of 46 years of age in good condition, who was attacked on 21st June, 1877, with a tibio-

tarsal pain. On the 23rd there was general fever; general fatigue; heart free, pulse 96. Quinæ sulph 0.80 gramme was administered. 24th. The right foot and shoulder painful; pulse 100; heart free. 25th. Left foot, swelling gone; right foot and shoulder swollen and painful; pulse 100; heart free; tongue salty. 26th. Rheumatism continues its course; pulse 100; great night agitation. 27th. Salicylic acid 7 grammes in ten powders, to be taken in panada. The effect, Dr. Empis says, was marvellous. The pains were calmed with the 5th powder. 28th. The pains of the joints have ceased; deafness and aural commotions; no fever; abundant perspiration; extreme debility; slight puffing systolic sound. Ordered 5 grammes of salicylic acid in divided doses. 29th. Patient is well; medicine suspended. At a quarter past four next morning, the patient wished to take a drink. Whilst he was doing so, he was taken with a violent pain in the stomach, and fell down on the pillow, and in a moment was dead.

The "Bulletin de Therapeutique of the 15th July," says in a note, is it not probable that a *post mortem* would have thrown valuable light on the above case, and might have shown that the cause of death was ascribable to a different agency from that of the action of the salicylic acid? The sudden cessation of life would seem to point to this interpretation.

TORONTO UNIVERSITY EXAMINATIONS.—The following gentlemen have successfully passed their professional examinations in this University:

For M. D.—C. K. Clarke, J. E. Langstaff, S. Lett.

For M. B.—J. D. Anderson, G. S. Armstrong, F. Black, D. H. Bowlby, W. W. Bremner, D. C. Buchner, F. Burt, J. W. Caughlin, W. F. Chappell, T. Chisholm, R. E. Clapp, J. R. Dryden, W. B. Duck, A. J. Geikie, D. Gould, C. J. Hamilton, J. G. Head, J. G. Hyde, T. A. Kidd, W. Lehman, J. W. Lesslie, R. P. Mills, H. G. Mackidd, J. McCarroll, A. McDiarmid, J. J. McIlhargey, P. McLean, J. A. McKinnon, G. W. McNamara, D. A. Nelles, T. J. Park, E. Prouse, G. G. Rowe, B. Spencer, J. W. Sharpe, F. W. Shaw, F. C. Stevenson, E. Sullivan, J. H. Todd, H. C. Van Norman.

Primary.—W. H. Aikins, W. Beatty, ‡G. S. Beck, F. Bentley, L. Bentley, †M. Brownlee, J. C.

Burt, J. F. Cattermole, C. W. Chafee, G. H. Clemens, L. B. Clemens, R. Cotton, J. Ellis, †W. C. Gilpin, †W. Gunn, †G. W. Haken, W. E. Hamill, F. W. Howitt, †J. H.; Hunter, H. C. Jones, F. B. Lundy, W. C. Machell, *P. May, Hamilton Meikle, J. McBride, †C. L. McCracken, G. L. Milne, †L. J. Munro, J. H. McNaughton, †N. J. McKechnie, †N. McPhatter, †D. A. McTavish, J. E. Shaw, J. M. Shaw, H. W. Smith, A. Soper, L. M. Sweetnam, T. H. Stark, G. B. Thompson, W. J. Tracy, E. D. Vandervoort, †G. J. Walsh, †H. Watt, W. L. Witherspoon.

*To take physiology over. †To take *Materia Medica* over. ‡To take botany over.

First Year.—J. F. Bell, S. G. Cleland, T. J. Duncan, W. F. Eastwood, A. H. Ferguson, Jas. Ferrier, *R. W. Fisher, *W. Hanbridge, §H. P. Jackson, W. H. Johnson, F. D. Kent, E. D. Knill, J. Lafferty, †J. G. Mennie, T. M. Milroy, †D. W. Montgomery, T. E. McMahon, W. H. Oliphant, A. C. Panton, †S. R. Rogers, §D. Rose, R. A. Wallace, §F. E. Woolverton.

*To take anatomy over. †To take chemistry and natural philosophy over. ‡To take botany over. §To take zoology over.

Honors.—University Gold Medal—F. Burt. First Silver Medal—R. P. Mills; second do, W. F. Chappell. Starr Gold Medal—F. Burt.

Scholarships—First year, R. A. Wallace; 2nd do, J. H. Duncan; 3rd do, W. J. Cross.

VICTORIA UNIVERSITY.—The following gentlemen received the degree of M. D. at the recent convocation of this University: R. W. B. Smith, Rev. John McCarroll, John S. King, E. C. Lalonde, L. DeGrandpre, R. B. Chagnon, J. R. St. Jacques, J. A. Leblanc, L. I. Pratte, J. O. A. Laurendeau, J. L. Germain, S. Desjardins, L. G. E. Boucher, A. A. Toucher, A. Plante, L. Z. Normandin, J. A. Provost, R. W. Forte, W. E. Aubin, S. Alain, Z. Falcon, R. P. E. Marie, G. A. Lacerte, J. N. Bergeron, L. A. Masse, M. G. Lafontaine, E. C. Jenigor, F. X. R. Lafleche, E. T. Gaudet, G. L. Laforest, J. H. Ward, E. E. Duquette, J. A. M. Elie, J. A. Lafortune, E. Bellemare, L. Z. Auclair, C. Cote, A. T. Cote (DeLaval), G. A. Thyernay, O. Goyer, A. F. Fleury, L. A. Olivier, L. Fortier, L. B. Durocher (DeLaval), M. E. LeMaitre, L. J. A. Anger, J. E. V. Mathieu, P. O. Renaud, Z. Laroche, M. J. Girouard, C. J. S. Gouthier, A. J. H. De-

Grandpre, M. J. E. Legris, M. A. Gustin, A. A. Lefavre, L. DeG. Rother, G. E. Letourneau, G. N. Malo.

THE BRITISH MEDICAL ASSOCIATION.—The next annual meeting of the British Medical Association will be held in Cork, Ireland, on the 5th of August and following days, under the presidency of Dr. Denis O'Connor, Prof. of Practice of Medicine, Queen's College, Cork. The address in Medicine will be delivered by Dr. Hudson, of Dublin; in Surgery by Mr. Savory; and in Public Medicine by Dr. Fergus, of Glasgow. The Presidents of sections will be as follows:—Dr. Andrew Clark, in medicine; Dr. Tanner, of Cork, in surgery; Dr. Kidd, of Dublin, in obstetric medicine; Dr. Grimshaw, of Dublin, in public medicine; Dr. Power, in physiology; and Dr. Eames, of Cork, in psychology.

ONTARIO MEDICAL COUNCIL EXAMINATIONS.—The following gentlemen passed the final examination of the Board, but as they did not matriculate till 1876, their names were not previously announced. The Council has decided to grant them the license:—G. T. Armstrong, J. D. Anderson, D. A. Bowlby, W. B. Duck, G. H. Groves, J. G. Hyde, D. Lowry, P. D. McLean, J. McFadden, A. J. McCammon, G. Newlands, T. J. Parke, F. H. Stevenson, and B. Spencer.

The following candidates successfully passed the recent matriculation examination:—L. D. Ross, A. D. Watson, J. D. Dusty, W. K. Ross, R. M. Stevenson, C. Lapp, E. J. Forbes, W. H. McDonald, G. A. Sibler, J. E. Jenner, W. H. Taylor, J. Baugh, W. A. Hawley, J. G. Sutherland, F. P. Drake, A. D. Smith, A. L. Brown, J. A. Meldrum, W. Taylor, A. Shaver, H. H. Graham, F. A. Sawers, W. J. Young, W. A. Ross, A. Hawke, F. S. Keele, J. Quirk, Miss A. Stowe, Miss E. Smith.

TRINITY COLLEGE MEDICAL EXAMINATIONS.—The following gentlemen successfully passed for the degree of M.B., at the recent examinations:—R. P. Mills, J. A. McKinnon, W. B. Duck, J. W. Caughlin, J. J. McIlhargey, J. T. Kidd, C. O'Gorman, J. W. Sharpe, E. M. Thuresson, J. D. Anderson, G. O'Reilly, E. Prouse, A. J. Geikie, R. E. Eccles, D. Lowrey, A. C. Graham.

INTERNATIONAL MEDICAL CONGRESS.—The sixth session of the International Medical Congress

of Medical Sciences will be held this year at Amsterdam from the 7th to the 16th of September. Prof. Donders will preside.

HONORS TO CANADIANS.—W. J. Mickle, M.B., Toronto University, Grove Hall, Bow, London, and A. M. Baines, M.D., Trinity Medical College, Toronto, have successfully passed the examination before the Royal College of Physicians, London, and were admitted members of the college on the 24th of April.

Charles Sheard, M.D., Trinity College, Toronto, successfully passed the examination of the Royal College of Surgeons, Eng., and was admitted a member of that body on the 23rd of April. G. H. Cowan, M.D., Toronto, has passed the primary examination of the Royal College of Surgeons.

TROMMER'S EXTRACT OF MALT.—There are few remedies which have within the past few years come into more general use, than extract of malt. It has now come to be not only the great substitute for cod liver oil, where this remedy cannot be tolerated, but also a most important adjunct in the treatment of all cases of tuberculosis. Almost all the authorities both at home and abroad recommend its remedial qualities. The administration of extract of malt is applicable to a greater number of cases than cod liver oil. Extract of malt is officinal in the German Pharmacopœia, and by German medical writers it is placed in the front rank as a remedy possessing in the highest degree, nutritive and restorative, combined with sedative, tonic and alterative virtues. It is not only valuable in the treatment of phthisis but also in all feeble and exhausted states of the constitution. In Ziemssen's Cyclopædia of Medicine, vol. xvi., it is recommended in the highest terms in the treatment of phthisis and other wasting diseases. We can also speak from experience in regard to its efficacy, having used it in practice more or less frequently during the past two years. It is easily borne by the weakest stomach, and when continued for some time produces a marked improvement in the condition of the patient, where the disease is not too far advanced, accompanied with an increase in the weight. It may be used either in the form of the simple extract, or combined with cod liver oil with which it forms an agreeable emulsion, iron, hypophosphites, iodides, quinine, pepsin, &c., &c.

DEATH FROM CHLOROFORM.—A death from the administration of chloroform occurred recently in this city. The patient had received an injury resulting in dislocation of the ankle joint, accompanied with fracture of the lower end of the tibia. Chloroform was administered to facilitate reduction, and while the attendants were in the act of adjusting the parts, stertorous breathing was observed, and almost immediately afterwards respiration entirely ceased, and could not be restored. No organic lesion was discoverable at the *post mortem* to account for the sudden death.

LACTOPEPTINE.—We again draw the attention of the profession to the merits of this new preparation. We have used it in practice since its introduction and have been greatly pleased with the results. Its formula shows it to be a strictly scientific preparation, and one which cannot fail to take a prominent rank among the pharmaceutical preparations of the day. In the treatment of marasmus, dyspepsia, cholera infantum, vomiting of pregnancy, diarrhoea, &c., it is especially indicated, and rarely ever fails to give satisfaction. We have no hesitation in recommending it.

BISHOP'S MEDICAL COLLEGE, MONTREAL.—The 8th annual convocation of Bishop's University, was held on the 10th of April, when the following gentlemen received the degree of M. D., C. M.: D. D. Gaherty (Wood gold medallist), G. W. Nelson (prize for best final), G. G. Gale, G. O. Germon, R. E. C. Leprohon, C. Marshall, J. T. Jenkins, C. E. D. Comean, M. M. Kannon.

CORONERS.—Charles Battersby, M.D., C.M., of Port Dover, to be an Associate Coroner for the county of Norfolk. T. T. Beveridge, M.D., to be a Coroner for the county of Victoria, N.B. W. Besset and F. Gaudet, M.D., to be Coroners for the county of Westmoreland, N.B. W. Taylor, M.D., to be a Coroner for the county of Gloucester, N.B.

APPOINTMENT OF HEALTH OFFICERS.—The following gentlemen have been appointed as members of the Board of Health for King's County, N. B., by order of Council: E. A. Vail, M.D., B. McMonagle, M.D., J. N. Burnet, M.D., J. H. Ryan, M.D., G. Johnson, M.D., J. Gray, M.D., and Alfred Markham; Geo. H. Wallace, Secretary.

APPOINTMENTS.—Dr. E. W. Jenks, of Detroit,

has been appointed to the chair of Medical and Surgical Diseases of Women, and Clinical Gynecology in the Chicago Medical College. He will take up his residence in Chicago shortly.

Dr. Brouse has been appointed a member of the Senate of the Dominion Government.

Dr. U. Ogden has been appointed as the representative of the medical graduates on the Senate of Victoria College.

The death of Charles Murchison, M.D., L.L.D., of St. Thomas' Hospital, on the 23rd of April, in his 49th year, is announced in our exchanges. The cause of death was aortic incompetence.

To the Editor of the CANADA LANCET.

SIR,—I would like to ask if you know anything of one Dr. Budd. He claims to be an English graduate, and to have been a surgeon in the British army and on the G. T. Railway of Canada, and while in the employ of the latter was stationed in the neighborhood of Port Huron.

He came to this village and made arrangements to rent a house, paying or offering to pay a much higher rate of rent than the house was bringing, and by other acts of open-handedness made the people believe he was something beyond the common. He even went so far as to offer to buy out my practice. This show lasted for two or three days, and at the end of that time, he left. He went out for a walk in the morning, saying he would be back for dinner. This occurred three weeks ago, and since then nothing has been seen or heard of him. It is needless to add he forgot to pay his board bill.

If he is a legally registered practitioner he is certainly a disgrace to the profession, and if he is a quack, tramp, or an impostor he ought to be exposed. He pretends to have been registered at the late examination.

Yours, &c.,

GEORGE RIDDELL.

Coldsprings, May 24th, 1879.

[We know nothing of the person referred to above. He is not a legally qualified medical man, and his name does not appear among those who passed at the recent examination.—ED. LANCET.]

Reports of Societies.

HAMILTON MEDICO-CHIRURGICAL SOCIETY.

At the last regular meeting of this Society, held at the Royal Hotel, Dr. McKelcan, President, occupied the chair, and after routine Dr. Griffin read a short but interesting paper on a case of *Cardiac Thrombosis*, and represented the heart with the *thrombus in situ*. The paper gave rise to some very suggestive remarks from the members present.

Dr. T. W. Mills, resident physician of the City Hospital, presented six specimens of the following pathological conditions:—(1.) Three specimens of chronic inflammation of the bladder, the cause of one being a stricture of twelve years' standing, and of the other two, enlarged prostrate in old men. In one of the latter cases the walls of the bladder were $\frac{3}{4}$ of an inch thick; ureters and pelvis of kidneys involved in each case. (2.) Case of anthracosis of the lung. (3.) Diphtheritis of the larynx (fatal issue from closure of the glottis) in a case of erysipelas of the head and neck. (4.) Cancer of the pylorus, with secondary nodules in the liver. After brief explanations of the pathological history in each case, the doctor further illustrated the subject by microscopic sections of several of the organs presented.

Books and Pamphlets.

NAVAL HYGIENE, by Joseph Wilson, M.D., Medical Director U.S. Navy. Philadelphia: Lindsay and Blakiston. Toronto: Willing & Williamson.

It may be affirmed safely, because much observation and the inherent nature of things, the necessary relation of cause and effect, bear testimony to its truth, that if abundance of wholesome food, pure water, ample clothing, cleanliness, and efficient ventilation, as they now prevail in the American, British, and European navies, had in the time of Anson and Cook been the rule, the tremendous mortality resulting from scurvy, which frequently more than half depopulated the ships, would have been avoided. In 1779, in the British Navy, there was one death in every eight men employed, annually. In 1811 it was one in 32, in the present day one in 72. This wonderful improvement is the sole result of a careful attention to hygienic rules, including specially a fresh meat allowance and a liberal supply of lemon juice. The statistical re-

ports on the health of the British Navy do not entirely accord with the views of Dr. Logan in his review of the medical aspects of the Pacific coast of South America. Compared with the climate of the British and American (N) ports, it appears, drawing conclusions according to prevalent hypothesis and accepted dogmata, to have almost everything against it. Most of it is within the tropics. A great portion of its shores is still in a state of nature: all of it is teeming with vegetable and animal productions growing or decomposing rapidly. Rain falls in torrents at intervals in many places, and evaporation, atmospheric heat being intense, proceeds rapidly. High winds are rare, calms are common. Yet with all these apparent elements of disease and destruction, the mortality of the squadrons employed there from 1830 to 1836 was less than in the force employed in England during the same period. Compared with other tropical positions, particularly the coast of Africa and the West Indies, nothing appears in its favor; compared with the latter, something in the natural condition of the soil and its superabundant products appears against it, yet its mortality is not one-third part so great. These things and others of similar import, show the imperfect knowledge on the subject of climate as affecting health, and that much must be unlearned as well as learned, before anything deserving the name of knowledge shall be obtained on this very interesting subject. Dr J. Wilson's work of 260 pages includes remarks on outfit, drainage, clothing, food, arrangement of meals, purifying and preserving water, superiority of tea, coffee and other drinks, over alcohol; zoology and botany of Mexico and the West Indies; ventilation, special hygiene, and other subjects, the nature and multifarious character of which preclude in our short space anything approaching to an analytical review. We would recommend the work to such of our new graduates as may contemplate spending a few years as surgeons to vessels.

HEALTH AND HOW TO PROMOTE IT, by Richard McSherry, M.D. New York: Appleton & Co. Toronto: Willing & Williamson.

HEALTH PRIMERS. No. 1, Exercise and Training; No. 2, Alcohol; No. 3, The House and its Surroundings; No. 4, Premature Death, its Promotion or Prevention. Reprinted by D. Appleton & Co., New York. Toronto: Willing & Williamson.

Dr. McSherry's work, and the Health Primers

sent to us for notice should, if sufficiently circulated and read, suffice for the enforcement of strict hygienic rules. That the greater number of the ailments to which mankind are subject are entailed upon them by their ignorance, carelessness, and apathy, is an observation familiar to every reflecting practitioner of medicine. How large a proportion of the patients whom he daily visits might, by the simplest hygienic precautions, have altogether avoided the maladies they are suffering under, or have rendered their duration less prolonged, and their character less grave. If there is one axiom more indisputable than another in medical experience, it is that where filth and dirt prevail, that where the neglected habitations of a crowded and squalid population exist, there will be especially found the ravages of epidemic disease to prevail. This is moreover no barren fact, for the position that these physical conditions do generate or propagate epidemic disease, is scarcely less easy of demonstration than that they are for the most part removable. The object of the works now under review is to point out the injurious operation of these circumstances, and the most feasible plans for removing them, and counteracting their influence on the well-being of society.

M. Mallet and Dr. Chadwick bear testimony that we should not estimate the strength of a people by its mere numerical condition, that it does not depend on the absolute number of its population, but on the relative number of those who are of the age and strength for labour. It is proved that the real and productive value of the population of Geneva has increased in a much greater ratio than the increase in its absolute numbers. The absolute number has only doubled in three centuries, but the value of the population has more than doubled upon the purely numerical increase of the population. In other words a population of 27,000 in which the probability of life is 40 years for each individual is more than twice as strong for the purposes of production as a population of 27,000 in which the probability or value of life is only 20 years for each individual. Dr. McSherry's work consists of eight chapters:—Hygiene the better part of medicine; four divisions of human life—adult, mature and declining age; race, temperaments, idiosyncrasies, inheritance, habits, constitution; air we breathe, ozone, malaria, animal emanations, water, clothing, exercise, food, alcohol—use and abuse, &c., &c.

These works are intended more for the general reader than the practitioner, and with laudable taste are accordingly not overloaded with professional disquisitions; technical terms are carefully avoided; no arbitrary dogmas find place, and they have the great merit of being free from the empiricism of recommending sanitary precautions as the only infallible guides, not only when disease prevails to a comparatively trifling extent, but when the vigilant attention of the physician is demanded. We hope these works may obtain a wide circulation and attentive perusal.

A New Illustrated Work on the Normal and Pathological Histology of the Eye, by A. Alt, M.D., of Trinity Medical School, Toronto.

This work is heartily endorsed by Dr. Knapp, who stands at the head of this branch of the profession. It will be published simultaneously in New York, by Putnam's Sons, and in Weisbaden, Germany. This is the first work on the subject yet published.

MODERN SURGICAL THERAPEUTICS. A COMPENDIUM OF CURRENT FORMULÆ APPROVED DRESSINGS AND SPECIFIC METHODS for the treatment of surgical diseases and injuries. By George H. Napheys, A.M., M.D. Second edition, revised to the most recent date. Philadelphia: D. G. Brinton, M.D. Toronto: Willing & Williamson. Price \$4.00.

The above work, as will be seen from the title page, is a ready reference book for the surgeon. The work is a very popular one, and has had a ready and rapid sale. The practical character of the work commends itself to our special consideration. All the most recent formulæ, new dressings, and improved methods of treatment, including suggestions of the most recent date whether in books or journals are included in the present edition. There is also a companion work on MEDICAL THERAPEUTICS, issued by the same publisher. A similar work on Diseases of Women is also in contemplation.

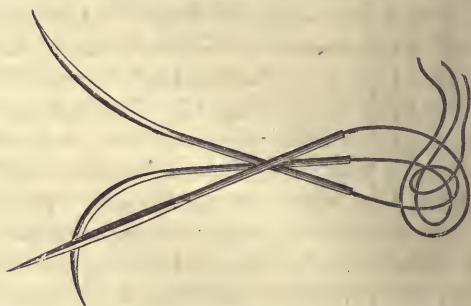
ATLAS OF SKIN DISEASES. By Louis A. Duhring, M.D., Professor of Skin Diseases, Pennsylvania Hospital. Part V. Philadelphia: J. B. Lippincott. Toronto: Willing & Williamson.

Part V contains four beautiful photos. of scabies, herpes zoster, tinea sycosis, and eczema (vesiculosum.) Each number continues to improve. The drawing and coloring in the present number are even better than those which have preceded, and are sufficiently large to enable the smallest details to be shown with distinctness and fidelity. These photos are considered

by many to be more natural and truthful than any that have as yet appeared in any atlas. We unhesitatingly recommend this atlas to our readers.

New Instruments.

A NEW SURGICAL NEEDLE.



The above cut represents a new needle for the introduction of silver wire sutures, by Mr. Bailey, of Toronto. This needle is so constructed that the silver wire, instead of being passed into the eye as in the ordinary needle, is screwed into the posterior part of the shaft, so that the wire appears as if a continuation of the needle. The wire can be removed at pleasure, or a new one introduced. There is no drag in stitching wounds, as is often the case when the needle is being pulled through the margin of the wound, owing to twists and quirks in the wire. The contrivance is a really good one, and we have no doubt it will sooner or later supersede the old form in the application of wire sutures.

Births, Marriages & Deaths.

In Arkona, on Monday, May 5th, the wife of Dr. R. G. Brett, of a son.

At St. Stephen, N.B., on the 17th ult., the wife of W. M. Deinstadt, M.D., of a son.

On the 14th ult., Winford York, M.D., of Simcoe, to Eva Rose, daughter of Rev. H. P. Fitch.

On the 16th ult., Frank S. Scovil, Esq., M.R.C.S.E., of St. John, N.B., to Mary Alice, only daughter of John Cate, Esq., of Brighton, N.B.

On the 20th ult., Mr. Isaac Waterman, to Carrie N., eldest daughter of James Cattermole, Esq., M. D., London.

On the 30th of April, A. Alt, M.D., of Toronto, to Helena, second daughter of the late T. W. Houghtaling, of Albion, N.Y.

THE CANADA LANCET,

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Original Communications.

ON THE ACTION OF THE SO-CALLED "INHIBITOR," "ACCELERATOR" AND "DEPRESSOR" NERVES OF THE HEART.

BY THOMAS W. POOLE, M.D., M.C.P.S. ONT.,

(Author of "Physiological Therapeutics.")

Physiological writers invariably teach that the pneumogastric nerves (vagi) exert a restraining or inhibitory influence over the motor ganglia of the heart, whereby its pulsations are normally rendered slower. The reasons assigned for this opinion are, chiefly, that after section of the vagus, in some animals, the heart beats faster, owing to an assumed paralysis of its inhibitory nerves; while the application to the vagi of a faradic current, which is regarded as a stimulant, slows the heart, and if strong enough, arrests it altogether,—owing to an increase of the inhibitory power placing such an embargo upon the motor ganglia of the heart as to render their power ineffectual to continue its action.

In what is to follow, we are about to call this hypothesis in question, and to appeal to authentic physiological facts in so doing.

The vagus is not a simple nerve-cord connecting the medulla oblongata with the heart, on which experiments can be made implicating this nerve alone. It is in most intimate connection with the roots of the sympathetic in the medulla oblongata, with the fibres of this nerve in the cervical spine, with the cervical (spinal) plexus, with the cervical sympathetic ganglia and the nerve-cords and plexus from these surrounding the great systemic vessels and with the ramifications of the same nerve in the lungs. It materially influences the heart through the respiratory process and the pulmonary circulation; and it is, besides, in reflex relation with the splanchnics,—the chief vaso-motor nerves of the

abdominal viscera. Indeed from the medulla oblongata to the splanchnics, embracing the vagus and the intermediate spinal and sympathetic nerve centres, we have a great nervous circle, the several parts of which are *en rapport*, reflexly, and so mutually influence each other, that it seems impossible to disturb the functions of any without causing a perturbation in the whole.

It has been demonstrated that in so far as respiration is concerned, the vagi are sensory or centripetal nerves, and act reflexly through the medulla and cord on the phrenic and other motor nerves concerned in respiratory action.* There is proof that the vagi, instead of being direct motor nerves (necessitates) have centripetal functions as regards the heart also, and modify its action, when they do so at all, indirectly through the cord, the sympathetics and the nervous circle referred to above. This proof consists in the fact that section of the vagi has no effect on the pulse, if the cord below the medulla be previously divided;†—this operation effectually cutting off the channel of its reflex action through the circle mentioned.

We shall have to show, by and by, on direct physiological authority, that neither the so-called "accelerators," nor the "depressor" exercises any *direct* influence on the heart's action; but that in so far as they modify it, they do so solely through "the peripheral circulation." This being the fact in regard to the "accelerators," which are simply a part of the sympathetic vaso-motor system,—and the fact being also shown that the pneumogastrics excite or depress this system through the medulla or spine,—all that is necessary to do is to shew that impressions made on the pneumogastrics are of a stimulating or paralyzing kind, in order to account for the vascular effects which follow.

Section of the vagus, we claim, sends a wave of molecular disturbance through the sensory or centripetal fibres of this nerve, which acts on the vaso-motor centre of the medulla oblongata as an irritation, equivalent to excitation, and is reflected as such upon the vaso-motor nerves of the cord and sympathetic ganglia, as a result of which the peripheral arteries are dilated. As a consequence, the transmission of blood through the systemic channels is facilitated, blood pressure falls, from lessened

* Handbook for the Phys. Lab., p. 336. Prt. 2, p. 185. Les on Physiol. Duval, Amory., p. 336. † Handbook, etc., p. 234.

arterial tension; and the cardiac muscle having a lighter load to lift, is driven faster by its own motor ganglia. Here, we submit, is the true physiological explanation of the increased frequency of the heart after section of the vagus.

We have elsewhere ("Physiological Therapeutics") produced able authorities for regarding section or mechanical injury of nerve tissue as equivalent to an excitation of its functional activity: and we are glad now to be able to add additional examples of its being so regarded by other Physiologists of distinction. Thus Dr. Ferrier in experimenting on the brain of a monkey, attributes a marked excitement of the sexual appetite to the effect on adjoining brain tissue of cutting away and removing the occipital lobes, although at the time the animal was much prostrated.* And Dr. Burdon-Sanderson regards excision of the sinus venosus of the frog's heart (preferably by a blunt scissors) as a source of excitation to the neighboring ganglion of the septum.† We may remark, in passing, that this additional evidence not only sustains what is said above as to excitation attending the section of the vagus, but it furnishes a valuable confirmation of the view propounded in our published work, that section of the cervical sympathetic produces dilatation of the cerebral arteries, not by paralyzing that nerve (as is generally assumed), but by exciting it. And we may add that the effects of section of the splanchnics in accelerating the heart's action‡ just as section of the vagus does, admits of a similar explanation; the excitation of the splanchnics acting reflexly on the vaso-motor branches of the thoracic sympathetics, through the great nervous circle referred to above.

The theory of Physiologists as to the inhibitory power of the vagi rests in no small degree on the fact that faradization of the vagus arrests the heart: and as faradization is regarded as equivalent to "excitation," in order that the heart may be stopped by a "stimulus," it is necessary to assume that it is the antagonists or inhibitors of the motor power of the heart which is thus excited.

In order to render the facts intelligible it is necessary to remember that in frogs (the animals on which these experiments have been chiefly performed and the action of whose hearts is best understood), the contractions of the heart originate

in the sinus venosus, or large vena cava, close to the auricle into which the entire venous supply empties. The sinus venosus is consequently regarded as the seat of the chief motor ganglion of the heart (Remak's). Close to the junction of the sinus with the auricle, and in the auricular septum, a ganglion of inhibitory power is hypothetically located (Ludwig's). The office of this is supposed to be to restrain or inhibit both the motor ganglion of the sinus and a second motor ganglion (Bidder's) at the junction of the auricle with the ventricle. The vagus is believed to pass into the heart close to the ganglion of the sinus, to which it sends branches, and to terminate in Ludwig's inhibitory ganglion. Faradic "excitation" of the vagus, or of its terminal inhibitory ganglion, is said to arrest the heart in the manner stated. So much for the aspect of the case, as seen by the Physiology of the day

We have elsewhere ("Physiological Therapeutics") produced substantial evidence that electricity is not an exciter, but a paralyzer of nerve tissue; and without delaying to refer to the proofs of this statement here, we proceed to apply this view of its action to the case before us.

Weber found that when faradization was applied to the ventricle of the heart "the irritated portion, little by little, contracted till it took no part in the rhythmical heart movement." Applied to the bulb of the aorta "the pulsations of the entire heart became more active and stronger," owing doubtless to the sudden contractions thus produced in the aorta aiding in the propulsion of its contained blood. Here the motor nerves of the heart were uninfluenced, but on the application of the electrodes to the vena cava (sinus) "the heart after a few seconds stood still, and began again to pulsate some time after the removal of the irritation, and then in a slower rhythm.* When to this is added the well known fact that faradization produces spasmodic contractions in muscular tissue everywhere, proportionate to the strength of the current, we are prepared to account for the arrest of the heart by electricity as follows:

It is evident that it is through the sinus venosus that the effect in question is produced,* and as this is believed by Physiologists to be the seat of the chief motor ganglion of the heart, the arrest of

* Functions of the Brain, pp. 197, 198. † Handbook, etc., p. 278. ‡ Handbook, etc., p. 259.

* Hammond's Trans. of Meyer's Elec. in Prac. Med., p. 86. † Handbook, etc., p. 276.

the organ is accounted for by *direct paralysis of this motor ganglion*.

But the heart is also brought to a standstill, if by pressure, ligature, or other means, the contact of blood with its interior or endocardium is prevented.* Perhaps it would be better to say, the heart is arrested when its interior motor ganglia are no longer supplied with the blood and pabulum on which their generation of the necessary nerve force depends. This deprivation of blood either to the endothelium or to the ganglia, or to both, is brought about by the spasmodic constriction of the sinus at the point of its entrance into the auricle, which is the spot faradized in the experiment, as stated by Dr. Burdon-Sanderson.† When the spasm has time to relax,—in other words when the paralyzed nerves of the part have time to recover, as they slowly regain their wonted power, they are able to restrain the contractile power of the muscular fibres of the orifice, to dilate it, and as blood again enters the heart, and reaches its ganglia, its pulsations are gradually resumed, as recorded by Weber. Doubtless both the direct paralysis of the motor ganglion and the constriction of the orifice of the sinus act together in arresting the heart, and surely either view is as natural and as truly physiological as to assume that in a conflict of antagonizing nerves in the heart, one overpowers the other. The force of this last remark is heightened when it is remembered that the faradic “excitation” is really applied in closer proximity, if not directly to, the motor ganglion in the sinus, than it is to the inhibitory one in the septum, and yet of the two, it is only the latter which is “stimulated.” Had the motor ganglion of the sinus been also “excited,” and it is really difficult to see how it could escape, the two rivals might have fought it out indefinitely!

As to the arrest of the heart by faradization of the trunk of the vagus, it might suffice (in view of the facts elsewhere presented) to point to a paralyzing wave transmitted to the same chief motor ganglion; but the compound functions of the vagus and its extensive connections render it highly probable that the arrest of the heart is here due to a combination of causes.

The reader of Prof. Kuss's excellent Lectures on Physiology (Duval, Amory) will find a reason for the arrest of the heart by faradization of the vagus, altogether apart from any inhibitory influence of

this nerve, in the spasm produced by that agent in the diaphragm and expiratory muscles, resulting in compression of the heart and serious disturbance in the relative pressure at the arterial and venous extremities of the circulating current. Thus the highest point of blood pressure is at the origin of the aorta, where it may be represented as 1-4th or 25-100ths of the weight of the atmosphere: the lowest is at the entrance of the vena cava into the right auricle, where it may be set down at 0. Spasm of the expiratory muscles, or a very violent effort at expiration, raises blood pressure at the latter point from 0 or 1-100ths of the atmosphere to 16-100ths, “an enormous pressure for this part of the circulatory system, an essential feature of its working condition being the absence of all pressure.” So soon as this pressure in the vena cava becomes equal to that in the aorta, the circulation ceases,* and Weber has shown that the effects of a very forcible expiration (which is equivalent to a much less spasm of the expiratory muscles than that produced by faradization) slows and soon stops the heart.†

While faradization of the central end of the cut vagus, and especially of its superior laryngeal branch, affects respiration in the way just indicated through the medulla oblongata, and the circuit of the phrenic and other motor nerves of respiration (Kuss, 336),—faradization of its peripheral end, which ramifies in the lungs, and there, as elsewhere, is intimately associated with the sympathetic,‡ cannot fail to produce contraction of the muscular fibres of the pulmonary tissue, especially that of the envelope of the alveoli, known as “the muscles of Reissesen,”|| thus preventing access of air to the cells, which of itself suffices to arrest the circulation, and with this, the heart's action. But paralysis of the vagus, through its connection with the sympathetic at various points in the thorax as well as in the lungs, may be held to paralyze also the dilating power of the pulmonary vaso-motor nerves; contraction of the pulmonary vessels necessarily follows, arresting the circulation, which in turn is followed by speedy cessation of the heart's action.§ This explanation suffices for the arrest of the heart by faradization of the vagus without invoking any “inhibitory” motor power on the part of that nerve, and is the more feasible in that it is

* Kuss, *Physiol.*, p. 169. † Handbook, etc., p. 276.

* Handbook, etc., p. 218. † See Prof. Kuss, *Lectures*, etc., pp. 143, 313, 314. ‡ Dr. Carpenter's *Phys.*, p. 155. || Prof. Kuss, p. 296. § Dr. Carpenter's *Human Phys.*, p. 536, etc.

strictly in accord with physiological principles, and moreover accounts for the arrest of the heart in diastole; the right ventricle being found choked with blood in consequence of its being no longer able to empty itself into the vigorously contracted pulmonary vessels.

Confirmatory proof of the position here assumed is found in the fact that not only does faradization of the vagus arrest the heart in diastole by its centripetal action, but faradization of the mesenteric nerves produces the same effect. The mesenteric nerves communicate with the vagus in the solar plexus, and are also in communication with the aortic plexus;* but that the effect in question is produced not directly on the heart, but through the centripetal channel of the vagus, the medulla, the spinal cord and the nervous circle referred to, is proved by the fact that previous section of the vagi, or of the cord below the medulla, prevents faradization of the mesenteric nerves from thus arresting the heart.†

Now this reiterated proof of the centripetal action of the fibres of the vagus through which these results are produced, shows that this nerve is not the channel for a peripheral inhibitory motor influence between the medulla and the heart, as its assumed inhibitory power necessitates it to be. Seeing also that besides the vagi, the sympathetic furnishes the only other medium of communication between the cerebro-spinal centres and the heart,‡ it is evident that it is through the sympathetic the heart is influenced in these experiments; and as already remarked, we shall see in treating of the "accelerators," which are a part of the sympathetic, that their influence over the heart is no more direct than that of the vagus, but is solely exerted, in the words of Physiologists, "through the peripheral circulation." We therefore claim that the physiological facts demonstrate, not only that the vagus is not an inhibitory nerve of the heart, but also that the vagi and so-called "accelerators" are not rivals or antagonists in influencing the heart, as is commonly asserted.

It is a little remarkable that while faradization of the vagus, or sinus venosus, arrests the heart's action, this result does not occur, if in a frog, 1000th of a grain of atropia or less, is first introduced into the circulation. The problem for us here, is, why

a paralyzer like atropia should prevent the effects of faradization, which we hold to be also a paralyzer of nerve tissue.

The explanation of the Physiologists is, that faradization is a stimulus, and stops the heart by exciting Ludwig's inhibitory ganglion, which in consequence, puts such an embargo on the two motor ganglia as to arrest their activity and so stops the heart: that atropia, by paralyzing this inhibitory ganglion, renders the subsequent excitation of faradization powerless, and the motor ganglia being unopposed, the heart continues to beat.

The chief objections to this explanation are:

That it necessitates two systems of motor nerves of antagonistic function.

It requires that the circulation of poisoned blood should paralyze one portion of nervous tissue and not another, in close proximity in the same organ, from the same dose and at the same time.

It requires that the faradic current should excite one nerve ganglion, and produce no effects on another in closer vicinity to the point of contact.

If the inhibitory ganglion be paralyzed by the atropia, and if electricity be a "stimulus," having an affinity for that ganglion, it ought to counteract the paralyzing effects of the atropia, and, (on the theory) still arrest the heart.

If the faradic current fails to excite the inhibitory ganglion because it is already paralyzed, why does it fail to excite the motor ganglion of the sinus, (which is assumed to be unaffected by the atropia,) and so drive the heart faster?

The explanation is not in accord with the centripetal relations of the heart with the medulla through the vagus.

There is besides the anomaly of predicating the *arrest* of the vital activity of an organ by *exciting* a portion of its mechanism. What would be thought of a theory for bringing a horse to a standstill by applying a particular kind of spur, or applying it in a particular place?

The explanation of the problem which we have to suggest is necessarily a matter of inference rather than of demonstration. It is that atropia may produce such a change in the molecular condition of the nervous (motor) ganglion of the heart, and of the vagus or spinal centres, as to prevent electricity from inducing in them its ordinary molecular disturbance, and that as a consequence, it fails to produce its characteristic effects on the

* Wilson's Anatomy, pp. 407, 441. † Dr. Burdon-Sanderson, Handbook, etc., p. 253. ‡ Handbook, etc., pp. 256, 257.

nerves or muscles subjected to its influence. It is favorable to this view that in subjects profoundly ætherized or chloroformed, or under the influence of nicotine or morphia, faradization of the nervous convolutions of the hemispheres fails to produce its usual effects in inducing characteristic contractions of corresponding muscles of the trunk and limbs; and Lauterbach has "no doubt that all substances which destroy sensibility prevent these movements."*

The vagus and heart are not alone in displaying this peculiarity of the action of atropia. Thus the contractions in the muscular fibres of the intestines ordinarily produced by faradization of the splanchnic nerves are also prevented by previous injection of atropia;† so that whatever be the explanation of the fact, the effect produced by atropia is of a general and not merely a local kind.

Other curious effects of drugs on the heart, arising from their mutual antagonisms in the blood, or in the nervous system, furnish subjects for ingenious speculation, but we defer special reference to these until further light is thrown on their action.

The argument that arrest of the heart in diastole, by faradization, is not the result of an inhibitory action exerted through the vagi, and even *that the vagi are not the channel through which the heart is arrested at all*, finds also strong confirmation, if not actual demonstration, in the further fact, that *the heart is similarly arrested in diastole* by such drugs as aconite (1), veratria (2), jaborandi (3), calabar bean (4) and chloral hydrate (5) *after the vagi have been cut or otherwise paralyzed*, as by curare, etc.

In concluding this part of the subject, we need hardly remind the intelligent reader, that a system of inhibitory centres and nerves is purely hypothetical, is unknown to the keenest anatomist, and owes its place in physiological records solely to the exigency of the vaso-motor theory at present in vogue. Nor has this appendage of the vaso-motor theory been allowed to pass unchallenged. The existence of such a system was doubted by Dr. Anstie, and repudiated by other eminent men, such as Lister, Edes, Piotrowski and Handfield Jones; and Dr. Anstie states that there is not a single one of the strongest instances of apparent inhibitory

action that has not been "challenged by experimenters of repute."*

(To be concluded in our next).

ANTISEPTIC PRINCIPLES IN SURGERY.

BY THOS. S. WALTON, M.D., L.R.C.S., EDIN., PARRY SOUND, ONT.

It has occurred to me to offer for publication the following account of a case which illustrates in a marked manner the glorious results of antiseptic principles, even when Lister's method cannot possibly be applied. It is all very nice and interesting to read of formidable operations being performed in a well-appointed hospital, where under carbolic spray, antiseptic gauze, and salicylic wadding provided by munificent revenues, the surgeon's anxieties are reduced to a minimum and the patient's chances raised to the maximum. But with the backwood's surgeon, too often poor in pocket, with long miles, rough roads, and deep mud holes between him and his poor, and worse, ignorant, patient and attendants, the case is very different. Still let such an one take courage. Antiseptic principles applied under circumstances and with appliances that would shock Lister to the utmost point of disgust, will produce marvelous results in the way of saving life and relieving suffering. The following case is given wholly and simply to show that the minute details of Lister's method, though admirable, and to be observed when possible, are not absolutely necessary to the most complete success.

On the 25th Sept. I was called to attend S. B., æt 35, reported to have been shot by a rifle ball in the upper part of the thigh. S. B. is a "hard case," living 9 miles from my residence, which again is 65 miles from the nearest railway station. I found his house characterized in an especial manner by squalor, filth, poverty, and uncleanness. Built on a sandy soil it was totally destitute of anything like a drain, and was surrounded by the accumulated abominations of about 10 years. The patient was lying on a mattress of marsh hay, the slightest movement of which raised a dust which scientists would justly call "septic." While walking in the woods a Snider rifle had exploded behind and within 8 feet of him. The ball had entered a little

* Amer. Jour. of Med. Science, Oct. 1877, p. 384. † Ringer's Therapeutics, p. 461. (1) Dr. Ringer's Therapeutics, p. 396. (2) *Ib.*, pp. 377-8. (3) *Ib.*, 474. (4) Braith. Retros. (Dr. Fraser) Jan. '71, p. 276. (5) Dr. Ringer, *Ib.*, p. 301.

* (Neuralgia p. 193-4).

below the tuberosity of the right ischium, and passing downwards and forwards had emerged in front, at a point about the junction of the upper and middle third of the femur. Shortening of the limb and immobility of the great trochanter when the knee was moved, were sufficient proofs that the thigh was fractured.

I bandaged the limb to a long splint extending from the axilla to the heel, applied carbolic dressing to the wounds, administered an opiate, and returned home. Pulse 100, temperature, normal. Patient anxious, yet hopeful.

Sept. 26th. Found limb much swollen; pulse, 120. Had to roll the patient on his left side in order to get at the posterior wound. On introducing probe found shattered pieces of bone, but none near enough or loose enough for extraction. Took some broom wire wound it spirally round a stout knitting needle, and then slipping it off the needle, insinuated it into a piece of india rubber tube, same as is used for infants' feeding bottles. I immersed this, as indeed all instruments employed, in a 1 to 40 solution of carbolic acid, and introduced it to a depth of 6 or 8 inches into the wound, and by means of a common glass syringe, with its nozzle inserted into the external end of the rubber tube, was able easily to wash out the whole of the ball track with a 1 to 40 solution of carbolic acid. I then placed a pledget of lint soaked in the same on the wound, and covered it with salicylic wadding. Previous to laying the patient again on his back I treated the "septic" mattress to a liberal sprinkling of carbolic acid. Sprinkled rags also with the same, and placed them between his thighs and in every convenient place about the wound. Spread some also on the floor under the bed. In fact we did all we could to impregnate and surcharge the air about the wound with the vapor of the antiseptic. As the opiate by the mouth had not acted kindly, we injected subcutaneously $\frac{1}{4}$ of a grain of sulphate of morphia.

Sept. 27th. Pulse 100; temperature normal; free from great pain; had been rather wakeful. We were pleased to observe a well-marked odor of carbolic acid on raising the bed-clothes. Repeated the washing out of the wound and applied dressing as before. Taught the attendants to inject subcutaneously the morphia, which was increased to $\frac{1}{3}$ of a grain, and ordered it to be repeated every 8

hours. Also gave ʒij. of whiskey every two hours, a "hair of the dog that had often bitten the patient."

Sept. 28th, 29th, and 30th. Profuse discharge of pus; no bones presenting or within easy reach; condition fair; pulse 100.

Oct. 1st. Slight rigors and increase of pulse to 120, with nausea, caused me to fear septicæmia. Washed out the wound twice daily, and was more profuse with the use of the carbolic acid. Increased the morphia to $\frac{1}{2}$ and ultimately to $\frac{3}{4}$ of a grain at each subcutaneous injection.

Oct. 2nd. No more rigors; pulse 90. Some pieces of bones were within reach and we extracted them.

Oct. 3rd. Condition same as yesterday; extracted more pieces of bone. From this onward the patient continued to progress favorably. From first to last I extracted 53 pieces of the shattered femur, weighing $3\frac{1}{4}$ ounces.

During the course of the case a perfect love was developed for the morphia injection. The pricking of the syringe needle was the joy of his heart, and a woefully sorrowful man was he when at last I pocketed the syringe, and firmly refused to supply him with any more of his "joy." Any time during the next few days he would have sold his farm for some morphia and a syringe, but he was isolated and I was firm, so the craving wore off without the slightest bad result. He can now walk comfortably and quickly, with the right leg three inches shorter than its companion.

Such is a brief account of the successful practice of Lister's principles in the backwoods. If, after thanking God for his recovery, the man is inclined to reverence any earthly thing, I have advised him to erect a shrine, and enclose within it the materials for antiseptic treatment, together with his "joy," the morphia arrangement, for I am convinced that these alone, under many and painful disadvantages, saved life and limb.

Correspondence.

To the Editor of the Canada Lancet.

SIR,—Permit me to call the attention of the profession to the Council of the College of Physicians and Surgeons of Ontario. This was formed in the interest of *three* different parties,—the public, the profession, and the students.

A young man graduating honorably at some

Canadian university, goes home, and after spending time and money, becomes a member of the Royal College of Physicians or Surgeons, London. How is he greeted on his return? As a criminal, unless he submits to (for him) a degrading examination; if he will not so submit, the public lose his services, which loss is not for their benefit.

The benefit to the profession is supposed to be protection; it has harried a few miserable old women; it has driven out of the Province some scamps who would soon have been in the Penitentiary. Forty years' service has convinced me, that all the protection a man requires he can have within himself; his skill and attention to his duties are all he wants.

As for the benefit to the students, I do not suppose it possible to find one (passed or rejected) outside of a lunatic asylum, who pretends to say he has, or ever will have, derived the slightest assistance from the Council. On the contrary, it is a most serious injury to them, breaking up their summer's course of study.

Let the working of this wonderful machine be looked into, and let us see how the examinations are conducted. With the extraordinary mania of the Council for muddling everything they touch, they here carry it to perfection. First, they appoint the latter part of the month for holding examinations, then, next year, they change it to the early part. Then they insist on four annual examinations, instead of primary and final,—when the different schools, altering their rules, also adopt the same. The Council then wait till the students get into harness, when, like spoiled children, they cry out again for primary and final. In all their examinations they manage to have some subject the schools, that session, do not lecture on. We must also remember that the examinations are not practical, but simply a re-hash of the ones the student has already gone through. The examiners may all be men of honor and skill, but what certainty has the young man that he will have a fair chance, if his school is not represented? Let us look at the composition of the Board. Eight men, who must each and every one have the most perfect knowledge of the twelve different subjects these students are to be examined on, because they (the eight) and not the examiners reject or accept. Is it possible to find eight such men? If

they are to be procured, they must be the most wonderful eight men that have ever existed.

The law of the Council gives the right of appeal; but how is this managed? Like everything else, it is muddled. The student attends after sending his notice and all his papers, but the examiner does not, and how on earth can an appeal be carried on when one of the two parties does not attend? Then, Sir, look at the extra expense to students—rail and hotel bills, to find their names posted up on the Registrar's door as passed; surely even the successful ones might be notified.

Let there be a fair and temperate examination of this Council, remembering the saying of a learned judge: "How can you expect corporations to be just; they have no bodies to be kicked in this world, and no souls to be d—d in the next. How can they be just?" It is easy to see it will require firm and united effort to compel this institution to do what is right. I am sure nine-tenths of the profession will bear me out, when I affirm that the community is totally indifferent to the benefit it is said to receive; that the practitioners treat it and its doings with the most perfect contempt, and that the students, one and all, abhor the very name of it.

I am not exaggerating when I say, that there is more trouble and annoyance from this examination, both to students and their teachers, than there is in passing a first-class examination at any real medical school, before examiners specially trained. And then when all this has been done and *pater familias* paid away a considerable sum, what has been gained?—a licence to practise in Ontario, and nowhere else.

I am, Sir, yours truly,

F. C. MEWBURN, M.D.

June 16th, 1879.

A SKILFUL OPERATION.

To the Editor of the CANADA LANCET.

SIR,—I send you herewith the following which is taken from the *Huron Expositor* of a recent date. Be kind enough to give it the benefit of comment in your valuable columns.

Yours truly,

A PRACTITIONER.

A SKILFUL OPERATION.—A very skilful and delicate surgical operation was successfully per-

formed, a few days ago, by Dr. Vercoe, of Seaforth, assisted by Dr. Coleman, on a child about two years of age, son of Mr. Wm. Box, of this town. The little fellow contracted a severe cold, which turned into croup. All ordinary remedies were unavailingly tried to relieve his sufferings, and death from suffocation seemed inevitable. As a last resort, the operation was performed. An incision was made in the wind-pipe, and a tube was inserted. This gave almost immediate relief, and in 10 minutes after the operation, the sufferer was sleeping soundly. This tube was allowed to remain in the wind-pipe for three days, and during that time respiration was entirely through it. After it was removed the child breathed through the natural organs, and is now nearly recovered. This is the first time this operation has been performed in this section of country, and the success which attended it, is alike gratifying to the parents of the child and to the practitioners. This gratification is all the more enhanced in consideration of the fact that the disease, membranous croup, is almost invariably fatal except this operation is performed. The danger and delicacy of the operation; also, will be apparent from the recognized fact among medical men that only one out of four recover, even after the performance of the operation; but, even in the event of the operation proving fatal, the death is much less painful than when caused by suffocation. The medical gentlemen above named are entitled to the greatest praise for the skill displayed, as had it not been for this operation the child would assuredly have died after a few hours' intense suffering.

[It is some time since we have had occasion to animadvert on the subject of newspaper advertising. This is, however, so glaring a case, and bears upon its face so unmistakably the evidence of its origin, that we cannot refrain from giving it that publicity it so richly merits. The editor of this enterprising paper must indeed be a rare genius, if, without any assistance, he penned the above notice. We would desire to exonerate Dr. Coleman from any complicity in this matter, as we have every reason to believe that he is entirely above suspicion.—ED. LANCET.]

Selected Articles.

FATAL EFFECTS OF CHLORATE OF POTASSA.

Dr. A. Jacobi communicates the following to the N. Y. Medical Society.—*Med. Record*, March 15th, '79.—Lacombe had under observation a man who took one ounce of chlorate of potassa, intending to

take an ounce of the sulphate of magnesia. The man died in convulsions, after having purged very freely, and the cause of death was regarded as *excessive diarrhœa*. The probability is that it was a case of nephritis.

Isambert, in his first reports upon the effects of chlorate of potassa, published more than twenty years ago, found among its effects increased diuresis, a sensation of heaviness and dragging in the lumbar region, such as is found after the administration of large doses of nitrate of potassa.

Ferris reports a case of death from cyanosis, with absence of pulse, within a period of thirty-six hours after taking a tablespoonful of the chlorate of potassa.

He found the ventricles of the heart empty and contracted, while the auricles were distended with dark blood. The kidneys were not examined.

When I myself, nearly twenty years ago, took single half-ounce and six-drachm doses of chlorate of potassa, I had a sensation of heaviness and dragging in the lumbar region, and increased renal secretion. I did not examine for albumen.

The case of Dr. Fountain, of Davenport, Iowa, occurring at the very same time, is well known. He experimented upon himself, taking over an ounce of the chlorate of potassa, and died within four days of nephritis.

I have also, before this, referred to one of my own cases; it was that of a man of thirty-odd years, who was told to use internally ten drachms of the chlorate of soda, within six days. Instead of that he took the entire quantity within six hours. Within twenty-four hours he suffered from diffuse nephritis. What little urine he passed was smoke colored, and afterwards black. It contained a large percentage of albumen, blood, hyaline and granular casts. Then there was complete suppression. There was vomiting and diarrhœa, headaches, and coma. He died upon the fourth day, and the post-mortem examination exhibited acute diffuse nephritis.

Dr. J. Lewis Smith, in a meeting in which the above statements of mine were referred to, reports a case of a child three or four years of age (see *Med. Record*, p. 398, 1878), who took three drachms of the chlorate of potassa in one day. After that only a few drops of bloody urine were discharged, and the child died at the end of twenty-four hours.

In the same number of the same journal, Dr. Hall reports a case of a child under one year of age, who took one drachm of the chlorate of potassa in a single night, and with exactly the same symptoms and the same results.

Conrad Küster (*D. Zeitsch. f. prakt. Med.*, 1877, No. 33), for no other purpose but to prove the essential identity of punctated, maculated, membranaceous, croupous, and nephritic forms of diphtheria—similarly to most writers since Bard, Bre-

tonneau, and myself amongst many—reports the following cases :

A young woman of twenty, vigorous and blooming. Mild angina. Small, white specks on tonsils. Feels pretty good. A strong solution of chlorate of potassa for gargling and internal administration. No doses, however, reported. The doctor found her dying at daybreak the following morning. Relatives said that vomiting and diarrhoea commenced in the evening, but that they all slept and were awakened in the morning by the laborious breathing of the patient. No post-mortem examination was made; urine was not obtained. There was no dropsy, but the skin exhibited a peculiar husky hue.

A man of thirty, in vigorous health. Trifling maculated diphtheritic angina. Strong solution of chlorate of potassa as a gargle and internally lime-water, besides. The tonsils cleared rapidly, but some malaise all the time. Urine albuminous. The doctor learned that the urine was peculiarly black on the third or fourth day. Gradual improvement, but urine albuminous a year and a half after.

A boy of three years, in good health; very mild, punctated, diphtheritic angina. Two other children had diphtheria seriously half a year previously, one of which died of laryngeal diphtheria. Gargle and administration of a strong solution of chlorate of potassa. Next day the doctor was notified the child was dying, and had passed black urine. So it was. The urine *was* black, a little greenish hue, moderately albuminous, the surface bluish white, the child dying. A good deal of vomiting. No dropsy. No post-mortem.

A girl of four, also robust and vigorous. Mild angina, some trifling whitish marks, hardly visible in the tonsils. Gargles and administrations of chlorate of potassa in strong solution. Appears nearly well, both locally and generally, within two days. But in the afternoon very suddenly vomiting, yawning, apathy, bluish-white complexion, accelerated compressible pulse, skin cool. In the evening some urine, black with greenish hue, albuminous, contained hematine. On the following days the color became more normal, and albumen less. On the fifth day the danger was over, but the pulse remained frequent a long time. No dropsy. A slight return of albumen on the sixteenth day.

Now Dr. Küster claims all of these cases as acute nephritis, and adds verbatim: "There is here a peculiar resemblance to renal irritation in carbolic acid poisoning. One is reminded of a medicinal poisoning, and would presume its presence if *carbolic acid* had been used for external application. In my cases the substance irritating the kidneys could be *none but the chlorate of potassa*. However, as this effect of chlorate of potassa has not been observed, as nephritis in diphtheria is, besides, nothing

unusual, the latter must be claimed as the cause of the accidents."

Küster's facts are correct, his theory is not. His cases were mild, all of them tonsillar, no general symptoms, no adenitis: in fact there is no, or very little, lymph-vessel communication between the tonsils and the rest of the body. Two of his four cases terminated fatally in a very short time; two barely escaped. The same symptoms, the same nature of the disease in all. The cases seemed to the author like so many of poisoning by medication, and so they were. Unfortunately the author, otherwise known as careful, earnest, and conscientious, reports no doses, but in every case he speaks of *strong* solutions of chlorate of potassa, which appear to have been used rather indifferently or indiscriminately. If you have followed my remarks, and compare my own cases with his, and if I remember how deeply impressed many of my professional brethren were when I first mentioned his experience in public and in print, all of us will not hesitate to look upon his cases as such, of acute nephritis brought on by excessive doses of chlorate of potassa.

After all the previous remarks, the practical point I wish to make is this, that chlorate of potassa is by no means an indifferent remedy; that it can prove, and has proved dangerous and fatal in a number of instances, producing one of the most dangerous diseases—acute nephritis. We are not very careful in regard to the doses of alkalies in general, but in regard to the chlorate we ought to be very particular. The more so as the drug, from its well-known either authentic or alleged effects, has risen, or descended, into the ranks of popular medicines. Chlorate of potassa or soda is used perhaps more than any other drug I am aware of. Its doses in domestic administration are not weighed but estimated; it is not bought by the drachm or ounce, but the ten to twenty cents worth. It is given indiscriminately to young and old, for days or even weeks, for the public are more given to *taking hold* of a remedy than to *heed warnings*, and the profession are no better in many respects. Besides, it has appeared to me, acute nephritis is a much more frequent occurrence now that it was twenty years ago. Chronic nephritis is certainly met with much oftener than formerly, and I know that many a death certificate ought to bear the inscription of nephritis instead of meningitis, convulsions, or acute pulmonary cedema. Why is this? Partly, assuredly, because for twenty years past diphtheria has given rise to numerous cases of nephritis; partly, however, I am afraid, because of the recklessness with which chlorate of potassa has become a popular remedy. Having often met medical men unaware of the possible dangers connected with the indiscriminate use of potassa or soda, I thought this Society would excuse my bringing up

this subject. It may appear trifling, but you who deal with individual lives, which often are lost or recovered by trifles, will understand that I was anxious to impress the dangers of an important and popular drug on my colleagues, and through them on the public at large.

COMPRESSION OF THE AORTA IN UTERINE HEMORRHAGE.

Dr. Griffith reports the following in the *Obst. Four., Great Britain and Ireland*:

Without any prelude as to various methods of treating this affection, I will cite a case which occurred in my practice some years ago, and by which I was first taught the expedient that I then adopted. Mrs. C., aged about twenty-eight, was in labor with her third child, when I was called to attend her; she was strongly built, bright, florid complexioned, and brave-hearted, having no fear for herself in her labor. The child was born naturally, but rather quickly; the secundines came away easily, and the uterus contracted nicely. I was getting the binder ready when, as I looked at her, she rapidly turned white, and was evidently getting into a state of excessive faintness; she did not speak; she did not even utter a cry; a heavy sigh escaped her lips; and she lay apparently lifeless. I thought she had died suddenly.

Suspecting hemorrhage, I quickly laid my left hand on the abdomen in order to grasp the uterus, while with my right I raised the clothes. A stream of bright-colored blood had suddenly flowed from her, and more was freely pouring away from the vagina. At once, without letting go my grasp of the womb, I lowered her head, turned her as gently as possible on her back—she had been on her left side—and when she was in this position I embraced the womb with both hands, making it contract somewhat, and moderating, though not checking, the flow. I saw my patient was fast sinking, and then thinking that sudden anemia of the brain, or sudden failure of the heart, from want of proper stimulation of the cardiac nerves, owing to excessive and rapid blood loss, would be the occasion of death, and feeling the aorta thumping at my hands, as it laboringly pumped on the blood, I bethought me of the treatment which I adopted. The very action of the great blood vessel striking my hand forcibly suggested to me to try the tourniquet principle on it, and thereby arrest the bleeding, and the death, apparently speedily imminent. Accordingly I buried my hands in the abdomen, working my fingers amongst the intestines, till I could well encircle the aorta; this done, there was an effectual arrest of hemorrhage. I maintained the compression, till I found that the bleeding did not return on relaxing my hold, that the uterus was firmly

contracted, and that the color had come—even though very faintly—back to the patient's face. She drew a few long breaths; she sobbed a few times, opened her eyes, looked languidly around as though she were unconscious of what had occurred, and was not aware of her present condition; and thus slowly she returned to life. Very carefully I bound her up, and had her carefully tended all that night and for many succeeding days; and she recovered with not a bad symptom, the protracted convalescence and the peculiar bleached, waxy hue, which results in all such cases, being the only apparent consequences of her narrow escape.

Ever since I successfully attended this patient, when I am confronted with profuse blood loss, sudden faintness, or any other symptoms calling for treatment identical with what I pursued in this case, I do not hesitate to put the same into execution. In some cases it is not practicable, as, for instance, when the person is stout, there being a thick tegumentary covering of fat; or where the omentum is loaded with adipose tissue; or where the abdominal walls are large, loose, and pendulous; or where excessive pain is felt from the manipulations necessary for the aortic compression; I, in these cases, grasp the uterus as firmly as I can, and by means of it I compress the artery against the back, thus substituting the uterus for the hand, as the compressing medium. This plan, when I could not employ the former, I have found to act very beneficially. When the patient is thin, the aorta will readily be commanded; and in some with even greater facility than with others; and and there are persons in whom the abdomen being large, and the integument loose, the uterus can be readily turned out of the way, and the aorta easily encircled.

Where the aorta cannot be compressed directly, or where the entire uterus cannot be made the direct medium of compression, as in the manner I have described, I would introduce the hand in utero, not alone to act as an uterine irritator, but in order to compress the aorta from within the uterus, and with only the intervention of the posterior uterine wall. For this purpose I would employ the right hand, as being in every way more adapted for use.

CHLORAMYL AS AN ANÆSTHETIC.

The following is from the *British Med. Journal* for April 26, '79.

Chloramyl, a combination of pure chloroform and nitrite of amyl has recently been tried as an anæsthetic, at the London Hospital, by Mr. Rivington, Surgeon to the Hospital. The first patient to whom it was administered was a healthy man, and the operation merely the slitting up of a sinus. The patient inhaled the drug freely and comfort-

ably, with no symptom of choking; the pulse increased almost immediately in volume and rapidity; the respirations were more frequent and less deep. In three minutes, the patient began to struggle, and, within four minutes of the commencement of the administration, the pulse suddenly failed, so as for a moment to be hardly perceptible; the respirations became hurried and shallow; the jaw appeared to be closed by spasm; the lips were blue; the eyes staring and suffused, the left pupil much dilated, but the right of moderate size (about the dimension of a No. 8 catheter); the breathing was very noisy and stridulous, as if due to laryngeal spasm. With difficulty the mouth was forced open. These symptoms passed off rapidly, and in about the space of two minutes the patient came to himself, without passing through the talkative stage usually observed when chloroform is given. The slight operation needed was performed while he was quite conscious. He himself thought that the anæsthetic had caused him to feel the pain less acutely. The next patient anæsthetised was a young woman aged 25, suffering from extensive warty growths of the vulva. Mr. Rivington cut away the growth, arresting hemorrhage by pressure and the occasional application of the actual cautery. She was in good health. She inhaled the chloramyl comfortably, and in five minutes was fairly under its influence. The pulse remained throughout full and regular, the respiration easy. As in the previous case, she regained consciousness without passing through the stage of disquiet usually observed. The third operation was for the removal of necrosed bone from the hand; the patient was a healthy man. In six minutes he was perfectly anæsthetised. His pulse during the first minute became intermittent, the intervals of intermission decreasing in frequency until the third minute, when the pulse was perfectly regular. The respirations were throughout easy. The patient struggled a great deal, but came to himself without any display of restlessness or talkativeness. In each instance, the patient was free from any cardiac mischief. The drug was administered in the same manner as is adopted at the hospital for the administration of chloroform, but the quantity used was greater. It was observed that, when once the patient was well under the influence of the chloramyl, small quantities of the drug were sufficient to keep up the narcotic effect. All the patients recovered completely, without vomiting or other bad result. In the two latter patients, the pupils remained throughout quite equal, the eyes turned up, with lateral ystagnus, the globes retaining perfect parallelism. The drug was obtained from Bass Brothers and Co. Chloramyl was first advocated by Dr. R. Sandford, in a letter to an American journal. From experiments upon animals, he has come to the conclusion that this combination, is far safer for general anæsthetic purposes than

chloroform uncombined, and, "so far as tried, it seems to be fully as safe as sulphuric ether, and far more pleasant in its administration, possessing all the advantages of pure chloroform without its dangers." He states that, "in administering chloramyl, the patient's face becomes flushed much sooner than with chloroform, but press the drug right along, and the countenance does not become pale. Both heart's action and respiration are kept up thoroughly throughout the anæsthesia." Dr. Sandford alleges that chloramyl prevents the approach of danger both by syncope and by asphyxia. The formula he uses is: Squibb's chloroform, lb. j: nitrite of amyl, two drachms. He suggests that the amount should be diminished in long and tedious operations. Mr. J. T. Clover, in reviewing Dr. Sandford's communication in the January number of the *London Medical Record*, stated that he made a trial of this mixture in ten cases. The anæsthesia was quickly produced, without much excitement in any case; but three suffered nausea afterwards, and two of them vomited and remained for an hour much in the same condition as if chloroform alone had been given. It appears to be similar in its action to that of a mixture of chloroform and ether; but as the vapour is less pungent, the patients generally breathe it without resistance. It was much too soon (Mr. Clover thought) to pronounce upon its relative safety.

"PRAYING DOCTORS."

The *London Lancet*, of May 3rd, 1879, has the following in reference to "praying doctors:"

The *World* of April 23rd has an article on praying doctors, which imputes to certain—or a certain class of—medical practitioners, that they seize the opportunity offered by the bodily and mental weakness of their patients, to ply them with appeals and exhortations on the subject of religion, and so practically establish themselves as medical *confessors*. If there were any real ground for this imputation we should be the first to denounce a procedure so obviously at variance with the obligations of medical etiquette and domestic decency. No confounding of the functions of the physician with those of the spiritual director would be sanctioned by the approval of the profession. If a practitioner were known to abuse his proper relations with the sick by proselytising, or making personal capital out of a pretence of religious zeal, he would be justly ostracised by the common sense of the scientific community. We do not, however, believe the assertion, that such a course is pursued by any creditable member of the profession. There are, of course, black sheep in every flock, our own not excepted; but we hope, and have confidence, that the number of those blackest of black-hearted men who would utilize a reputation for praying,

and an aptitude for preaching, in the interest of a "connexion," is very small, and of the total crew the medical profession has few representatives in its ranks.

[Unless Dame Rumor is very much at fault, we have one of these "praying doctors" in this city. Not long since one of his patients, a female, of a very religious turn of mind, fell dangerously ill, and was not expected to recover. He prescribed what appeared necessary in her case, and on his return next day finding her very much better, he knelt down at her bed-side and thanked God that he had been made the humble instrument of her recovery!—ED. LANCET.]

ADMINISTRATION OF MERCURY TO CHILDREN.

The following is from the "Confessional" in the *Brit. Med. Journal*.

The following case, for which I beg insertion in the "Confessional," illustrates the dangers attending the administration of mercury to children. I quote the case from memory.

Annie S., a child aged about 4, was apparently suffering from gastro-hepatic derangement. I ordered two powders, containing each three grains of grey powder, with I think, a small quantity of Dovers powder, the powders to be taken on successive nights and followed in the morning by a small dose of castor-oil. On visiting the case the day after the second powder had been taken, I found that profuse salivation had been induced. I used every effort to check the salivation by frequent use of mouth-washes, internal administration of chlorate of potash with cinchona bark, and feeding the child with milk *ad libitum*. Notwithstanding these measures, the salivation went on increasing, spread through the Eustachian tube to the internal ear, and finally the child died with symptoms of acute meningitis, on the eighth day after the administration of the second powder. I ascertained, on my second visit, what had not, I think, been properly brought to my notice at first, viz., that the child had quite recently recovered from what, by the mother's account, must have been an attack of scarlet fever. I may likewise mention that there was a very small ulcer on the child's tongue, a fact which may perhaps account to some extent for the rapid production of such acute salivation. This case has been a lesson to me not to give mercury to children, without careful inquiry into the previous history of the case.—H.

illustrated by the following cases, given by Mr. Jonathan Hutchinson, F.R.C.S., in a recent lecture:

One of the most remarkable examples of this eruption came under my notice about twelve years ago. A young gentleman called on me with a conspicuous papular eruption on his face and other parts. "I have just had small-pox," he said; "and Mr. — says that I am cured, but the spots don't go away." He added that Mr. —, a gentleman of large experience, had kept him in bed a fortnight, and had since sent him into the country for a fortnight, and now said that he might return to his desk at a bank, "but," he continued, "the other clerks won't sit near me, and declare that I have small-pox still." He had a chancre, and the eruption was syphilitic. I have seen several cases which had been treated in the small-pox hospital for eruptions which were undoubtedly syphilitic. But I must not mention the mistakes of others, unless I am prepared to be candid about my own. I had many a time, in clinical lecture, mentioned the preceding facts, and enlarged upon the importance of distinguishing between the syphilitic simular of small-pox and the reality, when my own turn came. One day in the summer of 1877 I was hastily summoned to see a gentleman at his own house, who had just been landed from a sea-voyage, during the whole of which he had been very ill. He had been carried from the vessel to his house, and put to bed; and I found him covered from head to foot with crusts exactly like those of variola in the third stage. Some had fallen, and where this had happened, deep scars were left. The eruption had begun to come out on the day that he went on board, and he had been feeling ill a few days before. The stages had been unusually long, but still had not exceeded possible limits. I questioned him as to syphilis, and examined his penis and his throat, but without finding any reason to doubt his denial. In a word, after a careful and skeptical investigation, I thought that the eruption was variola. The sequel proved that it was syphilis; the scabs took months to fall; and just when he was recovering from the eruption he had iritis, which I could not doubt was specific. At this stage, three or four months after I had seen him at home, in bed, he came to Moorfields Hospital. His face was pitted all over, and I had much difficulty in convincing those who then saw him that he had not really had small-pox. I could not quote an instance more conclusive in support of the assertion that one of the forms of syphilitic eruption is exactly like small-pox in all its stages, and in its resulting scars. Slow progress is the one difference between the two exanthems. The similarity is produced, no doubt, by the fact that syphilis, in these cases, attacks precisely the same anatomical structures as those in which the variolous pustule is developed. It is scarcely needful to remark that this form of eruption always occurs in the secondary stage.

SMALLPOX AND GREAT POX.—The *Michigan Med. News* has the following on this subject:—"The occasional similarity of syphilis to variola, which has led to their bearing a common name, is well il-

CLINICAL LECTURE ON BLOODLESS TRACHEOTOMY, EPITHELIOMA OF THE LIP, AND SPINA BIFIDA.

BY W. W. DAWSON, M.D., CINCINNATI HOSPITAL.

REMOVAL OF FOREIGN BODY FROM TRACHEA.

On Thursday last (May 15th,) this little fellow, Thomas Reardon, who is five years old, was playing with some grains of corn, putting some in his mouth. About 7 a.m. the mother's attention was called to him by his having a violent fit of coughing, in which he nearly strangled, becoming quite black in the face. After recovering somewhat, he replied to questioning that he had some corn in his mouth, and suddenly one of the kernels "went the wrong way." From this time up to the present he has had considerable cough, coming on chiefly in paroxysms, between which he is very comfortable. He was taken to several medical gentlemen here, who pronounced operative interference unwarrantable. I saw him this morning for the first time, four days and three hours after the accident. On putting my ear to his chest I discover signs of slight general bronchitis, and spasmodic, irregular inspiration and expiration in the larger bronchial tubes. There is no rattling as if some foreign body were present. The vesicular murmur can be heard distinctly over both lungs. Supposing a foreign body to have entered the larynx, it may remain there, pass into the trachea, into one of the primary, or more rarely into one of the secondary bronchial tubes. Round, smooth, small bodies are more liable to pass on to the bronchi, than rough or uneven ones, the latter very frequently sticking in the larynx or remaining in the trachea. Now, gentlemen, supposing a foreign body to have passed through the larynx and trachea, in which bronchus is it most apt to lodge; the right or the left? Those of you who remember your anatomy will correctly answer,—the right bronchus. Why? From the fact, first pointed out by Mr. Goodall of Dublin, that the septum at the lower end of the trachea, where it divides into the bronchi, is situated to the left of the median line. Any body descending by its own weight would thus naturally pass into the right bronchus, which is also larger than the left. There are some exceptions to the rule, regarding the arrangement of this membrane or septum.

Dr. Gross analyzed twenty-four cases where death occurred without operation. The foreign body was in the larynx in four cases; partly in the trachea and partly in the larynx in one; in the trachea in three; in the right bronchial tube in eleven; in the lung in one; and in the pleural cavity in one.

"In forty-two cases subjected to operation or general treatment, the extraneous substance was

situated twice positively, and eleven times probably, in the right bronchial tube; four times certainly, and four times probably, in the left bronchial tube; seven times in the larynx, and fourteen times in the trachea."

What are the symptoms of a foreign body in the air passages? If lodged in the larynx there will be paroxysms of coughing, preceded and followed by great pain at that point, alteration or loss of voice, and sometimes a crowing sound on inspiration. When in the trachea or bronchi, there are usually paroxysms of cough, pain in the throat or chest, sometimes a rattling sound during either inspiration, or expiration, or both. If the foreign body is of a vegetable nature, it is apt to absorb moisture, swell, and plug the tube. In such cases there may be collapse of the lung, the substance rising at each expiration and letting out the air, but closing like a valve at inspiration and allowing no air to pass. This may be produced by bodies, not vegetable, that happen to fit the tube accurately. In such cases the vesicular murmur will be entirely absent over the lung to which the bronchus leads.

What is it best to do in these cases? I make it a rule to operate as soon as I am satisfied that the body is there. Patients often recover without any operative interference, and for this reason many surgeons prefer to wait upon Nature. Death, however, may occur almost instantly from the forcing of the foreign body into the larynx, and from other causes. Durham of London has tabulated 554 cases of foreign bodies in the air passages. Of these 271 were not operated on; 156 recovered, 115 died. Mortality 42.5 per cent.

In 283 of these, bronchotomy was performed, 70 died; 213 recovered. Mortality 24.8 per cent. Difference in favor of cases operated on 17 per cent. Dr. I. R. Weist of Richmond Indiana, has tabulated and analyzed 163 cases, 82 of which were operated upon and 81 left to Nature.

He says, "as determined by Prof. Gross's tables the chances for recovery are more than twice as great after bronchotomy, as they are without this operation; while the cases here presented show only a difference of $1\frac{1}{2}$ per cent. in favor of the operation. And I feel sure from observations made during the collection of material for this paper, that were it possible to collect from medical men generally *all* the facts known to them in relation to this subject, the difference in favor of the operation would be reduced still more." Where the foreign body is in the larynx primarily it may often be reached and moved with a pair of long throat forceps. The laryngoscope is of great service in some cases; in others the patients, who are usually young and do not see the importance of quiet, struggle so as to render it useless. Sudden death being liable to occur at any moment, (though patients have lived for twelve months without any difficulty of breathing or urgent symptoms), I deem

it best to operate at once. I may say in this connection that I have performed tracheotomy a great many times, have never lost a patient where I operated for foreign bodies, and have never saved one where I operated for the difficulties attending croup or diphtheria.

Following the guidance of your text-books, gentlemen, you will regard this as one of the simplest and most satisfactory operations in surgery. You are told to make an incision through the skin, and then all that lies between you and the trachea is the cellular tissue and a few unimportant veins, through which you may cut with impunity; open the trachea and insert the tube or commence your search for the foreign body. This is a great mistake. There is no operation which the surgeon so much dreads. At least this has been my experience. You imagine the case is simple, the neck long, the patient lean, and expect to find easy access to a superficial trachea. After dividing the integument you cut into the cellular tissue, and to your surprise and horror you find the trachea low down and covered by a mass of veins, rendered thick, turgid, almost varicose, by the impeded respiration. You cut, tie and tear your way along, and when you hope to open into the trachea, find yourself at the bottom of a deep, blood well, with a constantly-moving tube to open. It is for this reason that I have given up all cutting from the time of dividing the integument until the trachea is reached. Then, too, I operate high up. If the isthmus of the thyroid is in my way, I push it aside if possible, and if I cannot do this, I double ligate and divide it. My incision is made into the first two rings of the trachea, thus avoiding all danger to the great vessels at the root of the neck.

I shall now proceed to operate on this little fellow. I give him only enough ether to blunt sensation. I find it best to do so in most of these cases. My first step, you see, is to pinch up a transverse fold of the skin, and, passing my bistoury through it in the median line, cut directly out, thus making my skin incision, which, as you see, is pretty free. I now lay aside my knife, not using one again, until I come to the trachea. With a fairly sharp steel director I now proceed to tear up the tissues in the median line. I have just exposed the anterior jugular vein of the right side. It is large and tortuous. Under this Dr. Kearns passes a double ligature, and ties it in two places. The trachea is situated very deep in the neck for a child so thin and long-necked as this one. Separating the muscles on the front of the trachea, I now see that tube, and, bending in across it a vein almost as large as the trachea itself. Having sponged away what little blood there is, I draw the large vein to one side and with this *curved, double-edged, sharp-pointed bistoury*, I catch up the trachea and open it, cutting from below upwards. The knife I use is similar to Gross's abscess knife. The

grain of corn is right before us in the wound, but eludes all our efforts to grasp and remove it. As the child just coughed the kernel was forcibly expelled. Here I show it to you. It is unusually large, rather sharp-pointed, and not at all softened, though in its warm, moist bed for over four days. If I had some catgut ligature I would sew up the edges of the tracheal wound. Having none, I content myself with putting three sutures through the skin, covering this with a pad of cotton and applying a roller bandage.

I wish to call your attention to two points before closing. For the past eight years I have used the knife only to cut through the skin and open the trachea. I separate and tear the other tissues with a blunt instrument, thus avoiding all hemorrhage, the operation being really a bloodless one. In making your incision always be sure that you do not extend your cut too low, as the *arteria innominata* is relatively high up in children. One case is recorded where the *arteria innominata* crossed the trachea at the point where it should be opened, and it was decided to abandon the operation on this account. *Be sure to keep in the median line.* You noticed that when I opened the trachea I did it with a curved and double-edged bistoury. I never use the common bistoury for this purpose now. It is very hard to enter a trachea with it, a tenaculum, is necessary to hold the tube, and the force required to pierce the organ, if not very carefully guarded, is apt to cause transfixion of the trachea. The sharp-pointed, double-edged bistoury acts as a tenaculum holding the tube and readily cutting through its rings. Finally, let your incision into the trachea be free, for unless it be so, the chances of the patient's forcing out the foreign body when he coughs are not so good. Here I was obliged to make my incision a little larger than usual, on account of the large vein that curved around it, and the grain of corn did not fly out so readily as it would otherwise have done. Time prevents my saying any more to you on this very interesting subject to-day.

EPITHELIUM OF THE LIP.

The patient whom I now show you is about fifty years of age, strong and robust. I bring him before you, not because there is anything unusual in his case, but simply that he may serve as a text for a few remarks that I wish to make, on cancer of the lip. I operated upon him some ten days ago, removing the whole disease by making a V-shaped incision having the free margin of the lip as its base. Although I made a free incision and removed a large piece ($1\frac{1}{4}$ inches in breadth at its base), cutting clear of all morbid tissue into sound flesh, you see that union is perfect and the mouth but little smaller. When you come to do this operation for the first time you will probably hesitate and possibly neglect to remove as large a piece of

tissue as you will afterward wish you had. You need never hesitate, on this ground, in the ordinary case of epithelioma of the lip, for after the parts have been brought together and union has taken place you will be surprised at the little deformity resulting. You should cut free of all diseased tissue into sound flesh in order that the disease may not return. Such a method of operating has always been the rule with me, and to it I ascribe the fact that I have never had the disease return after operation. I carry out this practice in carcinoma of the female breast, a disease which you know is by no means uncommon, and one that is so likely to return after operating in the ordinary way. Instead of simply removing that part of the gland which I consider to be diseased, I remove the whole breast and let the wound heal by granulation. That part of the breast left after the usual operation is of no use, and indeed, the cicatrix resulting from the union obtained, is the point where the disease is most apt to show itself again. The cancerous mass is oftentimes well defined, in some cases encapsuled, but more often the deadly material is spread amongst the healthy tissues in such a manner that it is impossible for the surgeon to determine whether the part he leaves is normal or abnormal. Glandular structure that may be normal to the touch and sight, may, under the microscope, prove to be infiltrated with carcinomatous material. With this method of procedure, amputation of the whole breast, leaving no flap and, consequently, no cicatrix, I feel confident that I obtain better results than do those who only remove that part of the gland that, to the sight and touch, seems to be diseased. But to return to the lip. There is one form of disease that we may very readily confound with epithelioma. This is lupus; the *noli me tangere* of the old authors. How can we distinguish the one disease from the other? I know of but one diagnostic feature upon which any confidence can be placed. In lupus we have an ulcer that looks and acts almost exactly as does epithelioma, but it lacks one thing; the *hard, indurated, shotty feel* of the edges of the cancerous ulcer. The edges of lupus ulcer are soft, flabby and sometimes oedematous; those of epithelioma are hard and tough. Don't forget this.

I want to say a few words here regarding the etiology of cancer. There are many who believe, and justly too, I think, that all cancer is referable to some injury, chemical or mechanical, usually the latter; a blow, a traumatism. Whether this be true or not, the fact remains that almost every case of carcinoma that we see is referred to some injury. True it is, that, from the nature of our surroundings, we are constantly receiving injuries more or less serious, and it is very natural, when disease appears at a certain point to ascribe it to some injury of the part. There is, however, an undoubted connection between the two. Epithelioma

of the lip is most often seen in those who are so constantly holding the stem of a foul clay pipe between the lips. You will remember that in my lecture upon the nature and etiology of cancer, in the regular term, I spoke to you, somewhat fully, upon the difference of opinion or belief amongst some of our leading pathologists as to the nature of this disease. Paget and his followers maintain that cancer is a constitutional affection, and that the lesion, wherever situated, is simply a local manifestation of the general disease. In the minds of these gentlemen a traumatism is only the exciting cause that, in some cases, determines the point at which the lesion is to appear. Billroth, on the other hand, with an equally large following, maintains that the disease is purely a local one, and that the rest of the system is implicated only by an absorption of the peculiar cell or virus produced at the point of lesion. The question is still *sub judice*, and will so remain until some further light is thrown upon the pathology of this formidable affection. Remember one thing, in operating for epithelioma of the lip, *sacrifice a sufficient quantity of healthy structure to make sure that you have removed all of the diseased tissue.*

SPINA BIFIDA.

This is a congenital hernia of the membranes of the spine through a hole or fissure in the posterior wall of that canal. It is a very common malformation, being seen more often than any other except hare-lip. The child whom I present to you to-day with this patent condition of the vertebral canal is a little boy, four months old. The tumor, you see, is in the lumbar region, and of fair size, containing probably four ounces of fluid. The skin over it is thinned and has a purplish, cicatricial appearance. The sac being in all cases, simply a dilatation and protrusion of the cord membranes, its contents are of course the contents of the cord membranes and of the cerebral arachnoid, the two being continuous. Herein lies one of the great dangers in operating for the relief or cure of this condition: for in emptying the spinal diverticulum you are very apt to withdraw the cerebral arachnoid fluid, and lead to convulsions, inflammation and death. In some cases, where the skin covering the tumor is greatly thinned or entirely absent, ulceration may take place and the arachnoid fluid thus slowly drain away and lead to a fatal issue. Rupture or ulceration has been, however, occasionally followed by cure. In some cases the skin instead of being thinned or absent, has its normal thickness and appearance, and in still others is tough and leathery, being considerably thickened. The tumor may be pedunculated, the pedicle being long or short, or it may have a broad, sessile base. The difference is due entirely to the form and extent of the spinal fissure. In this case the base of the tumor is rather broad and the fissured

condition of the vertebræ may be felt through the membranes.

These cases are almost uniformly fatal, and as a rule rapidly so. It will be apparent to you that such delicate structures when exposed to constant chafing and injury will sooner or later inflame, and paralysis and death result. Some few cases have been known to recover after operation. Mention is made in Holmes' System of Surgery of two cases of this disease, where the patients lived to be forty-three and fifty years of age respectively.

Spina bifida is due to an arrest of development in the vertebral arches. This may arise from no known cause or may be traced directly to a dropsy of the membranes, usually inflammatory, producing a tumor that by its protrusion prevents the coming together of the parts and thus arrests the development of the same. The point of fissure is usually through the laminæ. There are some very rare cases where the bodies of the vertebræ are fissured or entirely absent. They are, however, so rare that I leave them for your special study. The sac in almost all instances contains a portion of the spinal cord. Its usual position is in the median line, on the internal and posterior aspect of the tumor. In aspirating these tumors, as I now propose to do here, you should make your puncture at the side in order to escape wounding the cord or its prolongations when present. Having carefully inserted the needle I now slowly withdraw the fluid contents of the tumor. This is very commonly accompanied or followed by convulsions. I think that in this case the cord is not present in the tumor. Dr. Moutmullur of Kentucky, whose patient this is, tells me that he has tapped the tumor twice before and that there were no convulsions. He says that he has tried various pads, and metal plates, tightly strapped over the tumor after emptying it, but that the fluid has accumulated each time in spite of his efforts to the contrary. Having emptied the tumor, I now proceed to apply a Sayre's plaster jacket, hoping thus to maintain an equable pressure, and possibly prevent a re-accumulation of the fluid, Sir Astley Cooper obtained some very good results by tapping and then carefully applying graduated pressure over the site of the tumor.

There have been many plans of treatment other than this. That by the injection of iodine, and the iodide of potassium and iodine in water have received the highest laudation. Brainard of Chicago and Velpeau of France claim to cure 50 per cent of their patients in this way. Brainard is said by M. Debout to have operated upon six cases by injection, with the perfect cure of five. Brainard himself (*Amer. Jour. Med. Sci.* vol. XLII, p. 65, 1861) however, claims to have cured but three out of seven cases. His method is as follows. He withdraws from the tumor six ounces of its fluid contents and then injects half an ounce of a solution containing five (5) grains of iodine and fifteen (15)

grains of iodide of potassium to the ounce of water. Allowing this to remain for a few moments he draws it off, washes out the sac with water and injects two ounces (2 oz), of the cerebro-spinal fluid, kept at the temperature of the body. Great as has been the success of this method of procedure in Velpeau's and Brainard's patients, it has not proved of nearly the same value in the hands of others.

Excision and ligation of these tumors is a very dangerous procedure, death almost invariably following.

(This little patient died of exhaustion 12 days after the aspiration. The application of the plaster jacket had no effect in checking the accumulation of the fluid.)—*Hospital Gazette*.

ON ACONITE AS A THERAPEUTICAL AGENT.

The following remarks are taken from an article in the *Practitioner* by Dr. J. S. Spark :—

The first disease to which I shall direct your attention, in which I have seen illustrated the abortive power of aconite, is pneumonia, and if it were the only affection which aconite could not only control, but also cut short, its gravity is such that we should be warranted in giving the drug a prominent place in our pharmacopœia. If administered within a day or two after the symptoms are apparent enough to render the diagnosis certain—but, of course, the earlier the better—it will arrest the inflammation and effect a cure in from one to three or four days, the beneficial effects being manifest from the very commencement of its administration. The pain frequently begins to subside from the first, the skin becomes moist, the breathing more natural, and the patient appreciably better and more comfortable after each dose. I have used it frequently, both in children and adults, and have never seen it fail to produce most satisfactory results. The dose I have generally employed for an adult is five minims (Fleming's tincture) at first, and one or two minims every hour after, modifying the dose according to circumstances. If the patient be debilitated from any cause, it must be prescribed cautiously, as I have seen it cause considerable alarm by producing delirium; nor are the beneficial effects of the drug any more, if so much, seen when it acts too powerfully.

I have not had sufficient experience to speak positively of its action in bronchitis, but so far as I have seen, it does not appear to exercise the same control over it as over pneumonia. I have, however, found it useful when there is much feverishness, with fullness of the head and flushing of the face.

In cynanche tonsillaris I have found it exceedingly useful, both as an abortive and as a controll-

ing or modifying agent. If properly administered during the inflammatory stage it will seldom fail to cut the attack short, and if given at the very beginning, to abort it. If duly administered, it not only cuts short the present attack, but after a time it seems to reduce or remove the liability to quinsy in persons subject to periodical attacks of it. It would take a considerable deal of evidence to establish this last fact, but I have seen it sufficiently often to warrant my referring to it.

Its use in fevers, especially in those of an inflammatory character, has been found very advantageous. It reduces the temperature and produces a very soothing effect from its action on the skin. Whether it will act as an abortive in such cases, or not, if given sufficiently early, I have not yet ascertained, but have every reason to believe it would.

There is no doubt of its efficacy in erysipelas, especially in that form which is occasionally consequent upon vaccination, which I have seen it cut short in a few hours.

We have no better illustration of the efficacy and rapidity of the action of aconite than in common cold, "cold all through one," or "cold in the bones," as it is variously popularly described, when one feels as "if he had been put through a thrashing mill." Ringer (I think) states that one or two drops taken at bedtime will enable a person in such a state to rise quite well in the morning; and certainly in the doses I have mentioned it affords very speedy relief.

It relieves that disagreeable affection, ringing in the ears, in many cases after a dose or two, and is said also to remove earache.

In the acute stage of gonorrhœa, when there is much pain and uneasiness, it affords marked relief.
—*Medical and Surgical Reporter.*

PROPYLAMINE IN ACUTE ARTICULAR RHEUMATISM.

Dr. James L. Tyson, in the *Philadelphia Med. Times* for May 10, 1879, after referring to the testimony of European and American physicians concerning the value of propylamine, or trimethylamine, in rheumatism, adds:—

That its efficiency in the treatment of acute articular rheumatism has not been overestimated will scarcely admit of a doubt, in view of results where I have recently employed it. More extended observation and repeated trial, I am inclined to believe, will fully justify the merits ascribed to and the encomiums awarded it in this complaint. . .

. . . An important prerequisite is, that the alkaloid and its chloride be *pure*, which is not always the case. The best which I have seen were from the laboratory of the Messrs. Nichols & Co. [now Billings, Clapp & Co.], of Boston, and that of the Messrs. Rosengarten, of Philadelphia, both being perfectly reliable preparations.

He gives the following account of two instances out of many in his own practice, illustrating the advantages of propylamine:—

The patients were females, between twenty and thirty years of age, and each was attacked, at different periods of time, with pain and swelling of the wrists, and in one the phalangeal and metacarpal articulations were swollen and sensitive. From thence the pain radiated to the elbows, the shoulders, the sterno-clavicular articulations, the chest walls, involving the intercostals (pleurodynia), causing considerable dyspnœa, wandering to the hips, sacrum, femoral fasciæ, knees, ankles, and feet, including the aponeurotic expansion on the sole and dorsum of each foot. The fever was intense, the pulse ranging from eighty-five to ninety, accompanied by redness and swelling in all parts implicated, with a hot, moist, perspirable skin. This was very nearly the condition of each. Finding that neither could tolerate any preparation of salicin or of colchicum, I resorted to propylamine, using the chloride, the rather disagreeable taste of the alkaloid rendering it objectionable to some; the latter being equally potential in this complaint, its slightly saline character leaving a not unpleasant impression on the mouth. It was combined as follows:—

R. Propylaminæ chloridi . . . grs. xxiv.
Aq. menthæ piperitæ, . . .
Aqua, aa fʒij. M.

Sig. A tablespoonful every two or three hours.

The dose of propylamine is six drops, similarly prepared and administered. Giving the chloride as above, two grains every two hours, and swathing all the joints in cotton batting, benefit was apparent in the first twenty-four hours. For the pleurodynia a weak sinapism was applied to the chest for fifteen or twenty minutes, followed by a warm mush cataplasm. These were alternated occasionally through the day. In the one case ten days elapsed, when I could pronounce my patient well; in the other, five days passed, when she was entirely convalescent. A tonic of quinia is advisable when rheumatic symptoms have subsided. No disturbance or appreciable influence was manifested in the therapeutic action of the propylamine, other than a gradual abatement of fever, pain, swelling, and all the distressing nervous concomitants of acute articular rheumatism.—*Boston Four. of Chem.*

NITRITE OF AMYL IN SEA-SICKNESS.

MR. CROCHLEY CLAPHAM, to whom is distinctly due the credit of introducing this remedy to the notice of the profession, again writes reminding us of the fact, and remarking that "with due attention to details he looks upon the drug as curative in at

least 90 per cent. of all cases treated." By a reference to his first article on the subject, published in *The Lancet* of Aug. 21st, 1875, it appears that, during several trips across the Pacific, Mr. Clapham treated altogether 124 cases. In 121 of these he tells, success was evident and complete. The drug was administered by inhalation, three drops of the nitrite being poured on a handkerchief held close to the nose of the patient, the inhalation being conducted rapidly. A caution is added, to the effect that not more than three drops should be used in the absence of medical advice. In July, 1878, we published an article on the same subject by Dr. J. Rudd Leeson, who was successful in about three-fourths of the cases treated, the remaining fourth complaining of a feeling of sickness, but without vomiting. One or two cases did not improve in any way. Dr. Leeson thinks that three drops for women and five for men is the minimum dose, but that caution is required. Mr. Clapham says it is not a dangerous drug, except of course in cases where the arterial system is more or less rigid from osseous deposits. In August last Mr. Clapham and Dr. R. Leeson each contributed a letter to our columns, in which the former quotes some favorable experiences of Dr. Crichton Browne in crossing to Sweden, and Dr. Leeson gives a very emphatic proof of the comparative harmlessness of that drug, for the particulars of which we must refer our readers to *THE LANCET* of August 10th, 1878. On the 3rd inst. Mr. Dingle, surgeon to the Peninsular and Oriental Company's ship *Mirzapore*, gives a favorable account of the remedy, saying that in one day he administered it in at least a dozen cases, and in all the effect was markedly successful, though in some instances it was necessary to repeat the dose, which he limited to three drops. But one of Dr. Dingle's patients has written to us, and says that, according to his observations on the occasion referred to, the drug ought to be administered with very great caution, and always under medical supervision. Later, as our readers will have observed, one or more favorable reports have appeared in these columns. Under such circumstances, and with such an accumulation of evidence, we consider it right, as Mr. Clapham suggests, to draw the attention of those who often "go down to the sea in ships" to the remedy. And we should recommend ship surgeons to take Mr. Clapham's standard—as a rule, to limit the dose to three drops, and not to take it unless under medical advice. He also recommends that the patient, when under treatment, should be in bed, because a good sleep is generally the first result, from which the person awakes wanting to eat. It is usually better to allow one fit of vomiting to occur before the treatment is commenced, "to ensure the *bona fide* character of the seizure." Some, however, do not vomit at all, but are very ill, and with these he considers the nitrite to be equally successful.—*Lancet*.

THE THERAPEUTIC VALUE OF CROTON-CHLORAL. —In a very interesting paper read before the Ulster Medical Society, Dr. Riddell *Dublin Medical Journal*, April 1879) reports his experience of the great therapeutical value of croton (butyl) chloral. He mentions first a case of severe paroxysmal headache ineffectually treated for many years by all the great guns of the *Pharmacopœia*, but cured by five grains of butyl-chloral twice daily and ten grains taken at night dissolved in spirits of wine and glycerine, with a little acid and syrup of orange to cover the flavour. The patient continues the five-grain doses at night, and now enjoys better health than she has done for years. Since that case, Dr. Riddell says he has used it largely—sometimes failing, sometimes relieving—till, by keeping an account of all his cases, it began to be clear which were most benefited by the drug. Since then, the number of cases relieved (some permanently) has increased. These cases are: headaches in females arising from mental distress; those cases of headache frequent at the menopause—in fact, all those called neuralgic, except a few arising from internal mischief, are benefited, and in many instances cured. In that distressing species of neuralgia called tic douloureux, he has found it in many cases acting like a charm. Of course, he does not include any arising from cranial or intercranial causes. He has tried it in neuralgia of the ovaries, but no good resulted. In insomnia, it is not so reliable as the hydrate; but in some cases, where the loss of, or inability to, sleep is accompanied by a weak or fatty heart, it is to be preferred, as it has no weakening effect on the central organ of the circulation. In one case of delirium tremens, where the circulation was very feeble, the combination of croton-chloral with digitalis had a wonderful effect, and it seemed as if the drugs could be given together in much smaller doses to produce the same results than singly. In this, he pushed it from ten to thirty grains every three hours, with drachm and two-drachm doses of the infusion of digitalis. In pain arising from caries of teeth, he has found it useless in most cases, and in all inferior to Richardson's "tinctura gelsemini"; but in one case, of a nervous young lady, by giving her two ten-grain doses, he was able to extract a tooth next to painlessly, to her great satisfaction. In these cases, it is in affections of those parts supplied by the fifth pair of nerves that it is of most use; but, to be of service, the drug must be given in far larger doses than prescribed in the *Pharmacopœia* for adults, five grains three or four times daily, gradually increasing if required; if stimulants be wanted, dissolve it in rectified spirit; if not, dissolve it in glycerine. In all cases complicated with hæmorrhoids give glycerine. If anæmia exist, combine it with iron, or what he believes better, arsenic; then gradually lessen the chloral. In all cases, he has found it better to give it in solution than in powder

or pill. Dr. Riddell mentions also severe pain with photophobia and blepharospasm after injury, in which atropia failed, but ten grains of butylchloral repeated in an hour gave complete relief; and a case of acute painful facial carbuncle, in which the effect of ten-grain doses every three hours was "simply marvellous," the disease going through the subsequent stages almost without the patient knowing anything of the matter from the sense of feeling. This remedy is probably less used in practice than its remarkable anodyne powers deserve.—*Brit. Med. Journal*.

CASE OF COMA FROM ALCOHOL AND EXTRAVASATION OF BLOOD, THE RESULT OF VIOLENCE.—The following case under the care of Dr. Dunlop is reported in the *Glasgow Medical Journal*, February, '79.—J. M., aged 50 years, was admitted into Dr. Dunlop's female ward on the morning of the 5th November, 1878. She was quite unconscious when admitted, and could not be roused. She had a strong odour of alcohol. From the policeman, who brought her to the hospital, it was learned that, at an early hour of the previous evening she had been seen about the streets under the influence of drink, and at a later hour she was found lying at the foot of a stair in a close. She was conveyed to the district police office, and as she was known to be in the practice of becoming frequently intoxicated, and further, as there was a strong odour of alcohol emitted with her breath, she was placed in a cell, and carefully looked after. As she did not recover consciousness after an interval of several hours she was removed to the hospital. On admission she was observed to have two slight bruises on the left temporal region, and also an abrasion upon the nose. At the hour of admission she was still unconscious, with small and equally contracted pupils. Her breath was distinctly alcoholic in odour, and her pulse was small and slow. At the visit hour she was still unconscious. Her pupils, though contracted, were observed to dilate as she was being roused, and when the rousing process ceased they rapidly resumed their contracted condition. She was again seen in the afternoon, and as sufficient time had elapsed for the effects of alcohol to have passed off, and she was still unconscious, it was considered that there was, probably, some head injury along with the intoxication. On the following day, the 7th, after having had cold applied to her head, and being well purged, she became partially conscious, and continued in that condition for several days. While in this semi-conscious state she stated that she had been criminally assaulted, and thrown down at the foot of the stair, but she could not state by whom. On the 15th she gradually became unconscious, and remained in that condition till the morning of the 18th, when she died, 13 days after admission

During these two days her left side became paralyzed, and her pupils became irregular—sometimes contracted, sometimes dilated, always irregular, and not sensitive to light.

On *post-mortem* examination there was found a large clot of blood spreading over the right hemisphere, under the dura mater. There was no fracture of the skull, or any evidence of injury on the right side; but in the left temporal fossa, and extending forwards to the left frontal eminence, there was a considerable quantity of extravasated blood. In addition to the blood there was compression of the right hemisphere, and there had been inflammatory effusion taking place upon the dura mater.

It was remarked of this case that it was, from the first, one of coma from extravasation of blood, probably with the addition of some symptoms of alcoholic poisoning. These latter symptoms must have soon passed off, leaving the coma of compression. The relapse into complete unconsciousness, after being so conscious for several days as to be able to tell her name and answer questions as to her state, is to be explained by the fact that, in consequence of the presence of the large clot, and of the compression of the brain, inflammatory changes had been set up, and effusion had taken place, giving rise to further compression which proved fatal.

There was no evidence of disease of the blood-vessels, or of the heart. The bleeding had taken place on the right side of the brain, immediately opposite the point where the injuries had been inflicted on the left side, and the clot was not between the cranium and dura mater, but was spread over the greater portion of the right hemisphere, and could not have been reached by trephining.

OSSEOUS UNION IN FRACTURE OF PATELLA.—Mr. Wheeler, of Dublin, in the *Medical Press and Circular*, reports an interesting case of fractured patella in which bony union is claimed to have taken place. Two years after the accident the patient died of phthisis, and Mr. Wheeler was fortunate enough to secure the specimen. This was submitted to Prof. Macalister for examination, who reported as follows: "I have macerated and examined the patella you sent me. Having cut it longitudinally, I find it to be bony throughout. The median half I have cleaned, and removed from its back the articular cartilage. It is a perfectly continuous bone, and shows a ridge of new bony matter across its articular face. The lateral half I have only slightly cleaned, but the union in it is very distinct and unmistakable. The sulcus at the upper and outer angle was filled by a mass of fibro-cartilage." This is one out of four cases which Mr. Wheeler has treated by his splint; the clinical results in the other three cases have been

entirely satisfactory, and he feels confident of bony union in all. Mr. Butcher has used the splint three times, and confirms the advantages claimed for it. The apparatus consists of a box splint for securing the leg, which may be elevated or lowered at pleasure, and two metal plates, softly padded, secured, one above and one below the patella, by leathern straps. These plates are approximated by means of a chain and windlass, and maintain the fragments in perfect juxtaposition.

THE TREATMENT OF DELIRIUM TREMENS.—Dr. George W. Balfour (*Lancet. Bost. Med. Journal*,) describes the method adopted by him for the treatment of delirium tremens at the Royal Infirmary, Edinburgh, during the past nine years. He points out the tardy appreciation of the fact, so clearly shown by Dr. Ware, of Boston, fifty years ago, that delirium tremens runs its natural course in from sixty to seventy-four hours, and that the remedies employed are often more dangerous than the disease. Such are large and repeated doses of opium and the large quantities of tincture of digitalis recommended by Mr. Jones, of Jersey. Dr. Balfour has found bromide of potassium in half-drachm doses given every hour, for ten or twelve hours perhaps, effectual in many cases. Chloral hydrate, however, is the main-stay, in doses of forty grains every hour for three hours if necessary, and only in the rarest instances has the third dose been required. One hundred and twenty grains, in divided doses, is not considered by the author a dangerous amount, as elimination goes on at the rate of about seven grains an hour. Dr. Balfour regards the use of alcohol after the beginning of an attack, or when an attack is threatening, as entirely bad, and has found it necessary in the course of the disease in the rarest cases only, when the exhaustion is great. Then it delays the cure.

PROLAPSE OF THE RECTUM IN INFANTS.—In a recent number of the *Wiener Medizinische Zeitung* Dr. Basevi suggests an improved method of treating this troublesome affection, which he finds most successful.

He cauterizes the mucous membrane of the intestine lightly with nitrate of silver, and replaces the gut. Subsequently enema of tannin, alum and ice-water are ordered, together with very strict diet, with a view to prevent enteritis. Should these measures fail and the intestine continue to come down, he uses his bandage as follows: The child is held by two nurses, with its buttocks up, over the bed, one securing the upper portion of the body, the other the slightly abducted knees somewhat up in the air. This position is most favorable for the reduction of the prolapsed rectum, because the child cannot bear down. After reposition, the surgeon stands on the right side of the bed with the thumb of the left hand pressing

the child's left buttock to the right, while the fingers bring the right buttock toward and against it. With the right hand several strips of plaster of some two finger-breadths are drawn from below upward and outward, overlapping one another, across the buttocks, from one trochanter to the other. The strips should approach the perineum as closely as possible. As a support to the plaster, a spica bandage of two or three finger-breadths is run over the lower part of the body. A gutta-percha or waxed paper covering can be used to keep the buttocks clean during defecation, and this bandage can be retained in position for a couple of weeks. If diarrhea be present, astringent enemata may be employed; if constipation, laxative enemata; and these should be given by the physician himself, for fear of disturbing the bandage, which can be changed without difficulty when necessary.—*Press and Cir.*

PILOCARPINE AS A REMEDY FOR BALDNESS.—It is announced by Dr. G. Schmitz (*Berl. Klin. Wochenschrift*, 27th January, 1879), that pilocarpine possesses, in a remarkable degree, the power of reproducing the hair on a bald surface, in certain instances at least. The cases on which this statement is based are as follows:—A man, 60 years of age, completely bald (with the exception of a few white hairs on the occiput), was operated upon for double cataract. After the operation there remained, in one of the pupils, a fragment of membrane, to cause the absorption of which the author administered, within a period of fourteen days, three subcutaneous injections of the muriate of pilocarpine. The membrane disappeared; but this was not all. At the same time the head became covered with a thick crop of hair, which grew so rapidly that, at the end of four months, no trace of baldness remained. The new hair was partly white and partly black. The second patient, aged 34, suffering from an affection of the retina, presented on the crown of his head a perfectly bare patch, as large as an ordinary playing card. Two injections of the same substance not only cured the ocular affection but produced an abundant growth of hair on the bald part of his head. Unfortunately, Dr. S. gives no information as to the nature or causes of the baldness in his two patients.—*L'Année Médicale*, March, 1879.

FATTY EMBOLISM.—Prof. Richet reports the following case (*Le Mouvement Méd.*, 1879, p. 77.) (*Med. Times*.) A roofer had fallen from a height, fracturing both femurs, the right seriously wounded, and with the entry of air into the tissues. On examination, the blood flowing from the wound appeared covered with drops of oil, showing rupture of the medullary canal of the femur with communication with the wound. Various other fractures had occurred. The extremities were cold,

as was also the entire left arm, although no injury had occurred in this limb. There was a total absence of pulse. Although shock would suffice to account for the coldness, yet there was reason to believe in the existence of fatty embolism. Microscopic examination of the blood, previously treated with osmic acid, which, as is known, colors fatty matter but does not color any of the normal constituents of the blood, showed the presence of oil-globules. These were very numerous in the femoral vein. The man succumbed to asphyxia. Prof. Richet believes fatty embolism to be closely connected with other forms of absorption of more or less septic fluids by the veins. He also refers to the thesis of Theodore Flournoy, of Strasbourg, published last year, in which ten cases of fatty embolism are reported.

GELSEMIUM IN NEURALGIA.—Professor Massini, of Basle, recounts his experience of the use of this drug in the treatment of eighty cases of neuralgia of the trigeminus. In cases of this sort Dr. Massini gives twenty minims of the tincture every half hour up to three doses, and he finds that the first dose usually affords relief, and that the pain rapidly subsides after a second or third dose has been taken. He has never found it necessary to exceed sixty minims, and only in one case did this quantity produce unpleasant head symptoms. The cases in which the remedy produces most benefit are those of simple rheumatic neuralgia of the alveolar branches of the trigeminus; in those it rarely fails. It also sometimes relieves the pain remaining after the stopping of a carious tooth. Where there is any inflammatory affection of the bone or periosteum, no good can be expected from the remedy. The medicine may, if necessary be repeated several days in succession, the active principle rapidly passing off by the kidneys.—*Dublin Journal of Med. Science (Lancet and Clinic).*

INJECTION OF LINSEED OIL IN CHRONIC CYSTITIS.—The following is from the *New York Medical Journal*. A man, aged twenty-nine years, entered hospital December 23d, suffering from cystitis of six months standing. Micturition occurred every hour both day and night. The urine contained a large amount of urine and pus. The ordinary remedies were used without benefit, and finally Dr. Howe proposed to distend the bladder and keep it so long as possible. The agent he used was linseed oil; eight ounces were used at each daily injection. After the treatment had been continued for a week, the cystitis improved. The pus and mucus disappeared. Micturition occurred only six times in twenty-four hours, and was unattended with pain.

Another patient, aged forty-nine years, was admitted with cystitis of three month's standing.

Urine contained both pus and mucus. Micturition was painful, and occurred eighteen times a day. The injections of linseed oil were used as in the previous case. After eight days the pain abated, and he was able to hold his urine for two hours; but at that time he had left the hospital, and has not reported since.

AN OPERATIVE METHOD TO COMBAT COMMENCING PYÆMIA.—H. Kraussold in v. Langenbeck's Archives, xxii, page 965, says (*Centralblatt, Cin. Lancet.*) "In a man 29 years of age at the Erlangen clinic, amputation was performed just above the knee joint on account of a badly united fracture complicated with an aneurism of the posterior tibial artery. Repeated and alarming hemorrhage followed, and the manipulations necessary to control it in a manner destroyed the antiseptic precautions so that on the fourth day pyæmia supervened with a chill. As the cause of the same was supposed to be a commencing suppurative thrombus of the vein, the latter was opened and a discolored fluid along with the contents of a thrombus escaped. Immediately after this the vein was exposed to Poupart's ligament, ligated at two points, and the intervening part, from two to three centimeters in length, removed. The femoral artery was also ligated in order to guard against further hemorrhage. The temperature of the body sank at once to the normal, and the patient recovered without further untoward symptoms. Ligation of the vein under similar circumstances, has been performed before with good results, and as soon as the diagnosis is established one should not hesitate to resort to it.

TREATMENT OF OBSTINATE SCIATICA BY SUBCUTANEOUS INJECTIONS OF NITRATE OF SILVER.—(*Med. Record, N. Y. Med. & Surg. Jour.*, March, 1879.) Dr. Dureau has collected cases of obstinate sciatica treated in the Parisian hospitals by Damaschine and Guerin-Rose on Luton's plan, from which has been deduced the following conclusions:

1. Subcutaneous injections of nitrate of silver are to be recommended in cases of inveterate sciatica.

2. These injections, though irritating to the tissues, may be undertaken without any fear of evil consequences.

3. The method renders it possible to reach the diseased spot and to insure the action of the remedy.

Improvement and recovery take place rapidly under this treatment.

5. The subcutaneous injections of lunar caustic are more active and less dangerous than the actual cutting which is so frequently recommended for sciatica.

A fifteen per cent. solution of nitrate of silver

is made, of which from 15 to 20 drops are inserted deeply in the region of the sciatic nerve.

GYNECOLOGY IN LUNATIC ASYLUMS.—Dr. Seguin remarks: "Dr. Storer has written a small work on the influence of uterine diseases over mental troubles, and has shed considerable light on the subject. I have no doubt that to-day a large number of female patients in asylums need a specialist, and many could be cured by the replacement of a uterine version, or the curing of an inflammation. Superintendents of asylums, as a rule, are incapable of attending properly to these maladies, and they have an aversion to calling in an outsider. Some have a great repugnance to such cases, for fear of being accused of assault. For very many reasons every asylum should have consulting physicians and surgeons. Dr. Storer cites case after case, showing a cause of insanity to be due to some uterine difficulty, and European statistical reports point the same way."—*Hosp. Gaz.*

PURULENT OTITIS MEDIA; TREPHINING OF MASTOID CELLS; PARALYSIS OF THE FACE.—A man was admitted to the Charity hospital (*N. Y. Medical Journal*) suffering from purulent otitis media, with facial paralysis. The ear was suppurating freely, but there was marked swelling over the mastoid portion of the temporal bone. It was considered best to trephine the temporal bone. After an opening was made a large amount of pus escaped. Injections carried into the ear escaped through the opening in the bone. The pain in the temporal region was relieved after the operation. An important point in the case was the paralysis of the muscles supplied by the facial nerve. The uvula was turned to one side, showing that lesion in the nerve occurred beyond the origin of the chorda tympani nerve.

EMMET ON THE USE OF ERGOT.—Emmet, in his recent work on Gynecology, says: "From the injudicious use of ergot in large quantities much harm has resulted, without the relation of cause and effect being recognized. But, as a rule, great benefit follows its use when administered in small and continual doses, with the view of acting on the coats of the vessels and of exciting only moderate contraction of the uterine tissue. Ergot should never be given in large doses until after the uterine canal has been dilated, and until it be found that the tumor projects sufficiently to warrant the belief that it may become pedunculated by uterine contraction. I have committed this error myself, and have likewise frequently observed it in the practice of others. Should a tumor be found buried in the uterine walls, or so situated that it cannot become pedunculated, large doses of ergot can certainly accomplish no good. But, on the contrary, if the uterus be thus excited to violent contraction with-

out a purpose, as it were, an increased quantity of blood will naturally flow to the parts, often with the direct result of causing cellulitis, and even peritonitis. By thus setting up a new source of irritation we will establish the most favorable condition for increasing the growth of the tumor."

PLUGGING THE NASAL CAVITIES.—The following method of arresting epistaxis was pursued with much success by the late Dr. T. H. Jewett, a distinguished Maine physician:

Roll up a lock of cotton into a cylinder an inch or an inch and a half in length; tie a strong thread to the middle of the roll; bring the two ends of the roll together, and then, opening the nasal orifice, pass the middle or folded part of the roll into the nostril; next, with the blunt end of a lead pencil, press in the cotton roll slowly, along the floor of the nose, an inch or more and rest. If the blood passes down the throat, you may be sure the bleeding spot is behind the roll; so push in your roll further, and the blood will cease to pass behind. Then, holding on to the string, pass some loose cotton into the nostril and push it down to the plug. The cotton will swell with the moisture and arrest the hemorrhage. In a day or two the natural secretions of the nasal surfaces will loosen the plug, and it may be easily removed by the string.—*Med. Brief.*

The *Lancet* gives the following manner of diagnosing thoracic aneurism: "Place the patient in an erect position, and direct him to close his mouth and raise his chin to the fullest extent; then grasp the cricoid cartilage between finger and thumb, using gentle pressure upward; if dilatation or aneurism exist, aortic pulsation will be distinctly felt by transmission through the trachea." The plan was suggested by Surgeon-Major Oliver.

THE PSYCHOLOGY OF HAMLET.—Dr. Forbes Winslow (*Med. Press and Circulae*), says in regard to the Psychology of Hamlet, that "there is no evidence to prove that Hamlet feigned madness, and that, tracing the delineations of his disposition carefully, there are conclusive facts of the existence of mental aberration followed by complete restoration to health previous to the termination of the play."

HAVEN'T TIME TO READ.—The man who gives as his excuse for not subscribing to a new journal, or for dropping one or more that he is already taking, "I haven't time to read so many," is, in nine cases out of ten, a poor tool. The busiest, most successful men in the practice of medicine are those who read most and write most; it is only the dawdler and the drone who "can't find time to read."—*Maryland Med. Jour.*

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TORONTO, JULY 1, 1879.

NATIONAL BOARD OF HEALTH.

Our medical friends in the House of Commons have not yet succeeded in pressing upon the Dominion Government the propriety of establishing a national Board of Health. Although this is one of the most important subjects which can claim the attention of our legislators, it has not yet received that consideration which its very great importance demands. Amidst the conflicting interests of political parties, it seems almost impossible to arouse any lively interest in anything outside of the narrow circle of party politics. This is one great question, however, upon which all parties might meet on a common platform, and, setting aside for the time all other considerations, address themselves to the great question of national health.

The United States Congress with praiseworthy solicitation for the health and lives of the people, has recently confirmed an act for the establishment of a National Board of Health, which must be regarded as the most important measure that has, up to the present time, been adopted in the United States. The act consists of four sections. The first section provides for the establishment of a National Board of Health, to consist of eleven members. Seven are appointed by the President with the advice of the Senate, and are to receive two dollars a day with reasonable expenses during the time they are actually engaged in the duties of their office. The remaining four members are to consist of a medical officer each, of the army and navy, a medical officer of the marine hospital service, and one officer of the Department of Justice ; these members receive no compensation. The second section determines the duties of the Board, in matters affecting the public health, the obtaining

of information and advising the departments of the government and the executives of the several States. The third and fourth sections require that the Board of Health, with the assistance of the Academy of Sciences, which is to co-operate with it, shall report to Congress at its next session, a full statement of its proceedings, and also a plan for a national health organization after consultation with the principal sanitary organizations and sanitarians of the several States. Special attention is also to be given to the subject of quarantine, both maritime and inland. The sum of fifty thousand dollars has been appropriated for the expenses of the board, and the carrying out of the purposes of the act.

The government and the people of the United States are to be congratulated upon the course which they have taken in the important matter of public health, and we trust that the Canadian Government will follow their good example.

The members of the National Board of Health, recently appointed, are as follows : Drs. S. H. Beemis, New Orleans ; Bowditch, Boston ; Stephen Smith, New York ; H. A. Johnston, Chicago ; I. L. Cabell, Virginia ; T. S. Verdi, Washington ; R. W. Mitchell, Memphis ; Dr. Hamilton, Marine Hospital service ; Drs. J. S. Billings and Grinnell of the army and navy, and Gen. Phillips of the Department of Justice.

THE McDOWELL MONUMENT.

The dedication of the monument to the memory of Dr. Ephraim McDowell the father of ovariectomy took place at Danville, Ky., on the 14th of May. The funds for the erection of the monument were subscribed solely by members of the medical profession of the State of Kentucky. There was an immense concourse of people present, among whom were Prof. Gross of Philadelphia, Dr. Sayre, President of the American Medical Association, Dr. Kimble, of Massachusetts, Dr. Gibney, Dr. Yandell, Dr. L. P. Blackburn, and the Governor and Secretary of the State. Letters were also received from Drs. Spencer Wells, Bryant, Thornton, Thomas, Richardson, Parvin, and Holmes.

The oration was delivered by Prof. Gross, whose services had been secured upon the death of Dr. Washington Atlee, who had been chosen to deliver the address. The oration will be published in the

memorial volume of the exercises. Dr. Sayre was also called upon to make some remarks in the course of which he said :

"We can scarcely comprehend the greatness of this man's mind, and the truly wonderful genius of McDowell, until we stop to consider who he was, what he did, and when and where he did it. A village doctor in the back-woods frontier, surrounded by Indians and the buffalo, almost beyond the bounds of civilization, with no books to refer to, with no precedent to guide, with no one to consult but his own unaided judgment, with no one to share the responsibility if unsuccessful, unaided and alone assumes the responsibility of removing a disease which up to that time had been considered absolutely incurable. Think for a moment what would have been the result of failure—a coroner's jury and a verdict of wilful murder—which at that time would have been pronounced correct by the entire medical profession throughout the civilized globe. All this he dared and did assume, because his clear intellect had reasoned out his plan of procedure, and his careful dissection had pointed out to him the path to victory. And now every intelligent surgeon in the world is performing the operation as occasion requires, until at the present time, as Dr. Thomas has stated, forty thousand years have already been added to the sum of human life by this one discovery of Ephraim McDowell.

Another fact strikes me very forcibly, Mr. President, and that is, the heroic character of the woman who permitted this experimental operation to be performed upon her. The women of Kentucky in that period of her early history were heroic and courageous, accustomed to brave the dangers of the tomahawk and the scalping-knife, and had more self-reliance and true heroism than is generally found in the more refined society of city life ; and hence the courage of Mrs. Crawford, who, conscious that death was inevitable from the disease with which she suffered, so soon as this village doctor explained to her his plan of affording her relief, and convinced her judgment that it was feasible, immediately replied, "Doctor, I am ready for the operation ; please proceed at once and perform it." All honor to Mrs. Crawford ; let her name and that of Ephraim McDowell pass down in history together as the founders of ovariectomy.

At the close of the exercises Dr. Cowling, as the representative of the Kentucky State Medical Society, presented Prof. Gross with McDowell's door-knocker, as a memento of McDowell, and of the occasion which had brought the former to Kentucky. Dr. Cowling, in the course of his remarks, said :

"I wish that the magician's wand were granted me awhile to weave a fitting legend around this

door-knocker which comes from McDowell to you, Dr. Gross. There is much in the emblem. No one knows better than you how good and how great was the man of whom it speaks. It will tell of many summons upon mercy's mission which did not sound in vain. Oftentimes has it roused to action one whose deeds have filled the world with fame. A sentinel, it stood at the doorway of a happy and an honorable home, whose master, as he had bravely answered its signals to duty here below, so when the greater summons came he as trustfully answered that, and laid down a stainless life.

It belongs by right to you, Dr. Gross. This household genius passes most fittingly from the dearest of Kentucky's dead surgeons to the most beloved of her living sons in Medicine. She will ever claim you as her son, Dr. Gross, and will look with jealous eye upon those who would wean you from her dear affection."

STUDY OF DISEASES OF THE EYE AND EAR.

In a recent number of "*Le Progrès Medical*" is an interesting article on this subject from which we make a few extracts. The diseases of the ear, notwithstanding their frequency and gravity, are often neglected by the generality of practitioners, as much as, or even more than diseases of the eye. However, like the latter they have been studied as a specialty by such eminent surgeons as Toynbee, Troltsch, Duplay, &c., who have very greatly improved on their treatment. It is nevertheless a matter of regret to notice that the generality of medical men take little interest in this study which is neither very tedious nor very difficult, and it is very undesirable that students should complete their medical studies without some precise ideas on these ailments.

This important question would appear to occupy the attention of foreign physicians ; thus we see Prof. Troltsch, whose labours on this subject are extensively known, claims for diseases of the ear the position which is due to them in a curriculum of medical study. In a paper on "The importance of understanding the surgery of the ear in the schedule of subjects obligatory at examinations," not only does he seek to demonstrate the utility of this study, but also indicates the means to be employed for forcing students to acquire a practical knowledge of these diseases. In this paper, which is addressed to the Imperial Chancellor, Prof. Von

Troltsch maintains that it is not only desirable but necessary in the interest of the State that every physician entitled to practice should be capable of diagnosing and treating diseases of the ear. He calls to mind that recently a special examination on the diseases of the eye has been rendered obligatory in all the German Universities, and that this new measure has been instituted for the following reasons: 1st. The great prevalence of diseases of the eye. 2nd. The very serious consequences that these diseases may have over individuals, and indirectly on the State. 3rd. The serious consequences and the prejudices caused by these maladies may diminish in direct proportion to the number of physicians who may become capable of diagnosing correctly and of treating the different forms of these maladies. The author arrives at the conclusion that the same reasons which necessitate a knowledge of the diseases of the eye, plead in favour of those of the ear. In regard to the first conclusion, he does not hesitate to state that diseases of the ear are of much more frequent occurrence than is generally supposed, and for the following reasons; they are not visible and easy to recognize like the generality of the diseases of the eye, therefore the acuteness of hearing may be reduced in notable proportions, before the fact may be sensible in the ordinary relations of life. He shows in a very conclusive manner how these affections are frequent in infancy and childhood as a sequence of small-pox, measles, scarlatina, hooping-cough diphtheria and scrofula. In the adult they result principally from tuberculosis, syphilis, pregnancy, and a great number of accidental causes.

The number of individuals who die from the consequence of disease of the ear is sufficiently considerable, and it is certain, that in a great number the treatment, if properly conducted, would prevent a fatal termination. Comparing the results to those given from diseases of the eye, the author considers serious consequences as much less frequent than in diseases of the ear.

The author believes that he is below the truth in asserting that of the 38,489 deaf and dumb persons existing in Germany, 15,000 owe their infirmity to diseases of the ear supervening after birth, and that a fifth, or 3,000 of these would, by speedy and energetic treatment of the affection of the ear, have escaped deafness, and would, at the least, have preserved a degree of auditory acuteness suf-

ficient for the comprehension of verbal language, and for profiting by ordinary education. He adds that it is highly necessary to give great attention to affections of the ear following the acute exanthemata, for these very frequently cause deafness. As regards the third point mentioned above, Troltsch is of the opinion, that the more surgeons there are capable of treating affections of the ear, the less will be the number of reputed incurables. He concludes therefore by desiring that a new regulation for examinations be established. Beyond being content with subjection of the candidate to an oral examination on the surgery of the ear, he would introduce a practical examination. The candidate should give substantial proof that he is capable of examining the tympanum in the living subject, and of describing its appearance; he should also be required to practice catheterism of the Eustachian tube on both the living and the dead subject, and to perform sundry delicate operations on the ear.

It is therefore obvious that he assimilates, with reason, the affections of the eye and ear, from the point of view of their importance, especially in young persons. All who read this memoir will see how truly its author has written, and that the course advised by him is the only efficacious means for attainment of the desired end, in other words physicians should no longer disregard the study of these affections. We shall be only too happy if these allusions to instruction on these diseases, may contribute to the introduction into our own faculties of a compulsory course on this important and long neglected branch of medical education.

DIFFERENTIAL REGISTRATION FEES.

At the late meeting of the Ontario Medical Council, a by-law was passed making a general registration fee of \$400 and granting a rebate of \$350 to Canadian graduates. This is intended to prevent British graduates, and Canadian M.D's possessing British qualifications, from practising in Canada, except on payment of a registration fee of \$400. We question, however, very much, whether such an arrangement as this will hold water. We believe it is *ultra vires*. The act provides that all who have received their qualifications prior to the 1st of July 1870 shall be admitted on payment of a registration fee of \$10, and no differential registration fee was contemplated.

Again, if the Council has power under the act as it at present stands, then why was an amendment introduced into the Ontario Legislature to give power to charge British graduates a registration fee of \$400?

We desire to uphold the Medical Council in its efforts to elevate the standard of the medical profession in Ontario, and to establish a uniform curriculum and standard of examination, but we do not at all sympathize with it in its attempt at exclusiveness and trades-unionism. The action of the Council in regard to this question is much to be regretted, as it is not only damaging to its prestige but also positively certain to lead to further litigation, a course which the funds of the institution will not warrant. If the Ontario Medical Council can enforce the payment of differential registration fees, then there is nothing to hinder other Provinces of the Dominion from doing the same thing. If the Council can charge \$400, why not \$1,000 or \$10,000, and absolutely *prohibit* all British practitioners?

We would not have alluded to this subject, as a matter of very great moment, were it not for the fact that such a policy on the part of the Council is likely to destroy all hope of obtaining reciprocity in medical registration between Canada and the mother country.

A NEW METHOD OF PERFORMING TRACHEOTOMY.—At the meeting of the American Medical Association, Dr. Henry Martin, of Boston, made the following suggestions with regard to tracheotomy. He considers tubes entirely useless, and performs the operation as follows:—The incision is made in the usual manner down to, and through the trachea; a central stitch is then introduced into each side of the wound through the tissues, including the trachea; this is loosely tied so as to form a loop, through which a long strip of adhesive plaster is placed, and upon this a very slight traction is made, the plaster being crossed at the back of the neck. This keeps the wound open, and unless the traction be too strong, the loops will not cut through for two or three weeks.

THE SPHYGMOPHONE.—The *London Lancet* for May 24th gives a brief description of a new invention by Dr. Richardson, which he calls the Sphygmophone. The apparatus is a combination of

Pond's sphygmograph, and the telephone, so adapted that the tracings are accompanied by sound, which may be distinctly heard by an audience of several hundred people—or by the extension of the telephone wires, a mile or two away from the patient. The sounds produced by the natural pulse are said to resemble the words "bother it."

COMPRESSION OF THE AORTA IN UTERINE HEMORRHAGE.—Dr. Griffith, in the *Obst. Four. Great Britain and Ireland*, reports a case where the life of a patient was evidently saved in post partum hemorrhage, by compression of the abdominal aorta. Compression of the abdominal aorta in uterine hemorrhage is not altogether new, although the plan recommended by Dr. Griffith is somewhat out of the ordinary, and is deserving of consideration. When the abdominal parietes are dense and the omentum covered with fat, so that compression cannot be readily exercised directly, he recommends the introduction of the hand into the uterus, in order to compress the aorta through the posterior wall. The presence of the hand in the uterus also acts as an irritator and favors contraction. A full report of the case will be found in another column.

TRINITY COLLEGE CONVOCATION.—The following gentlemen received their degrees in medicine at the convocation of the University of Trinity College, Toronto, held on the 7th ult.

M.D.—J. D. Bonnar, W. H. Doupe, W. A. Daffoe, K. Henderson, A. M. Lynd, and R. A. Ross.

M.B.—J. D. Anderson, J. W. Caughlin, R. E. Eccles, W. B. Duck, A. C. Graham, A. J. Geikie, T. A. Kidd, D. Lowrey, R. P. Mills, J. A. McKinnon, J. J. McIlhargey, C. O'Gorman, G. O'Reilly, E. Prouse, J. W. Sharpe, and E. M. Thuresson.

HONORS.—Gold Medallist, R. P. Mills; Silver Medallist, J. A. McKinnon. Certificates of Honor, W. B. Duck, J. N. Caughlin, J. J. McIlhargey, T. A. Kidd, and C. O'Gorman.

THE DETECTION OF SOUND BY THE TEETH.—That sound may be detected and conveyed to the sensorium by means of the teeth, and that the faculty of hearing is improved by opening the mouth is well known, and often practically illustrated in public audiences, where spell-bound hearers engaged intently in listening are often described as sitting with open mouths, as well as

ears, endeavoring to catch distinctly every word uttered by the speaker. Plumbers, and those employed in water works are sometimes enabled to tell whether water is passing through a pipe by resting the teeth on the stop-cock or by holding a small metal rod in the teeth, the other end of which rests on the stop-cock. When this is done and the ears stopped so as to exclude all other sounds, they are enabled to hear the flow of water through the pipe no matter how small the stream.

MONTERRAT LIME-FRUIT JUICE.—At this season of the year when drinks of different kinds are in good demand, we would desire to call the attention of the profession in Canada to the above preparation, introduced by H. Sugden Evans & Co., of Montreal, who are the sole consignees. It is a pure, unadulterated, and very superior brand of lime juice, and one which the profession can confidently recommend for use, to their patients. It most effectually disguises the taste of quinine, and has been successfully combined with it, in the form of a palatable "Quinine Cordial," manufactured by the above firm. Each wine glassful of the cordial contains 1 grain of quinine, and is entirely free from alcohol. Both these remedies will be found especially useful in many cases, at this season of the year.

BENZOATE OF SODA IN PUERPERAL FEVER.—Dr. Peteson of Gravenstein, in the *Centralblatt* for March, recommends benzoate of soda in the treatment of puerperal fever. He used it in doses of from 1 to 5 grammes (15 to 75 grains) with the most favorable results. It reduced the temperature and pulse, and removed the sordes of the mouth after the administration of a few doses.

FLORIDA WATER, HOW MADE :—

R Oil Bergamot,	3 iv.
" Lemon	3 vi.
" Cloves,	3 vi.
" Cinnamon,	3 vi.
" Lavander,	3 l.
Spts. Vin. Rect.,	3 1/2 galls.
Water,	6 pints.

Mix, and after two days of frequent agitation, add water to suit.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, EDIN.—Dr. A. M. Gibson of Perth, Ont., has successfully passed the examination and was admitted to the double qualification L.R.C.P. and L.R.C.S. Edin. in May last.

TRINITY MEDICAL SCHOOL ENLARGEMENT.—Owing to the large and yearly increasing number of students attending this medical school, an enlargement of the school building has been rendered necessary. In consequence a contract has been given for the erection of a new wing, to be completed on or before the 1st of October, 1879. This addition will so increase the capacity of the present buildings as to give two lecture rooms, a new chemical laboratory, a new large dissecting room, lighted from the ceiling, a museum and reading room for students. The faculty of Trinity Medical School is determined to make every improvement necessary for the comfort and convenience of the large and increasing number of students that every year flock to her halls.

COLOTOMY.—Five cases of colotomy for epithelioma and tumors of the rectum, are reported in the *Brit. Med. Journal* of May 31st, at the Middlesex Hospital under the care of Mr. Henry Morris, with four recoveries and one death. In the same are also to be found, the reports of two additional cases by Dr. Walters, read before the West Surrey District Association, one of which was successful. This operation when not delayed too long, affords great relief, and is the means of prolonging life even in some of the most unpromising cases.

ŒSOPHAGOTOMY.—Dr. A. B. Atherton, of Fredericton, N.B., assisted by Dr. Coburn recently performed the operation of œsophagotomy successfully, for the removal of a piece of bone which had become impacted in the œsophagus opposite the lower part of the neck. The patient made a very good recovery. The piece of bone proved to be a piece of a lamb's rib about an inch and a half in length with rough jagged ends.

MEMBERS MEDICAL ELECT.—The following medical gentlemen have secured seats in the Ontario Legislature in the recent general election: Drs. Baxter, Boulter, Barr, Cascaden, Harkin, McMahon, McLaughlin, Robinson, Robertson, and Widdifield.

Prof. Roberts Bartholow, A.M., M.D., of the medical faculty of the Medical College of Ohio, author of a work on *Materia-Medica* and *Therapeutics*, has been appointed to the chair of *Materia Medica* in Jefferson Medical College, Philadelphia.

REMOVALS.—Dr. F. H. Howe has removed from Fordwich to Kettleby, Ont., where his success is already secured. Dr. Lynd, of Bond Head, has removed to Parkdale, Ont.

Dr. Pickup has removed from Pakenham to Brockville, Ont., where he intends to establish himself in practice. He was made the recipient of a complimentary supper and an address by his friends in Pakenham on the eve of his departure.

CORONERS.—J. H. Lowe, M.D., of Haliburton, has been appointed an Associate Coroner for the Provisional County of Haliburton.

A. Noxon, M.D., of Milford, has been appointed an Associate Coroner for the County of Prince Edward.

A. Robinson, M.D., of Clifton, has been appointed an Associate Coroner for the County of Welland.

APPOINTMENT.—Dr. G. P. Girdwood has been appointed Lecturer on Chemistry in McGill Medical College, in place of Dr. Craik, resigned.

Prof. Piorry, of Paris, the great advocate of mediate percussion, died recently at the advanced age of 85 years.

Reports of Societies.

HAMILTON MEDICO-CHIRURGICAL SOCIETY.

The regular monthly meeting of the above Society was held on the 3rd ult. The President, Dr. Geo. McKelcan, in the chair.

The paper for the evening was one by the Secretary, Dr. Woolverton, on "A Case of Poisoning by Paris Green." The subject of the case was a German woman, æt 65, who weary of her struggle for existence, and family and pecuniary burdens, secretly took what is at least estimated a quarter of a pound of the above poison, about 3 p.m., and died about 11.15 in the evening of the same day. The family never suspected that she had taken poison, and no medical man was sent for till about 10 o'clock in the evening, when she was found in a dying condition, in a state of complete collapse, though partially conscious till within a few moments of death. The suicide was a most determined one, as she positively refused to have a medical man sent for, and sent every one away

from her bedside, and desired to be left alone. The symptoms during life as far as could be gleaned were not very marked. She never complained of pain, though there is a history of some vomiting of green stuff, which they took to be bile, also some purging of watery stools, but apparently neither to an excessive amount. The great amount of poison taken, appears to have produced a state of collapse, and the short time in which death came, anticipated the full development of the symptoms of arsenical poisoning. The œsophagus and stomach were presented for inspection, and showed marked evidence of the effects of an irritant poison. The dependent part of the stomach especially, was of a grayish dusky hue, and softened, and its vitality nearly destroyed. The paris green was detected as low down as the descending colon. The bowels were pale, and contained much serous fluid. There was nearly a teacupful of the green sediment mixed with mucous still remaining in the stomach. There was some old standing disease of the kidneys. The right cavities of the heart were full of dark blood, the left ventricle well contracted. There were some atheromatous changes about the valves, but not to such an extent as to render them incompetent. The membranes of the brain were much congested, and the sub-arachnoid spaces filled with serum. The lungs were uniformly emphysematous, and completely filled the cavity of the chest. The usual tests for arsenic gave abundant evidence of its presence. The case is interesting from the amount of poison taken, and that poisoning was not suspected till the next day. She being in a dying condition without any marked symptoms except those of collapse, it was thought by the medical gentlemen in attendance that she was dying from cardiac thrombosis, but on learning more of the symptoms present during life, poisoning was suspected.

MICHIGAN STATE BOARD OF HEALTH.

The regular meeting of the State Board of Health was held in Lansing on the 8th of April. Dr. Kedzie, President, in the chair, and Dr. Baker Secretary. On motion Dr. Kedzie was re-elected President for the ensuing two years. The Secretary announced the passage of three new laws by the State Legislature. One of these provides that the council of each city and village shall be a Board of Health, unless there is other provision by

special law, so that hereafter there is to be a local board of health in every township, village and city in the State; another makes it the duty of health officers of cities and villages to notify the prosecuting attorney of any neglect by householders or physicians to report cases of disease dangerous to the public health; and the third authorizes boards of health in cities, villages and townships to furnish free vaccination to the inhabitants thereof. The Secretary is to prepare a circular to health officers in cities, townships, and villages, calling attention to some of their duties under the new laws, and otherwise setting forth their duties as health officers.

A communication was received from Wm. M. Evarts, secretary of state, giving notice of a prize of £100 offered by the Royal College of Physicians of London for the best essay on hydrophobia, its nature, prevention, and treatment.

Dr. Lyster read a paper relative to the reclamation of overflowed or saturated lands. Reference was made to large tracts of lands on the Crapo farm, the Chandler farm, near Detroit, and descriptions given of the methods adopted and their results.

Dr. Kedzie referred to a paper by Judge Miller, of Bay City, on the same subject, giving his experience in the Saginaw valley, where he is reclaiming a section of very valuable land by protecting it with dykes, pumping the water out with steam pumps, and then keeping down the leakage by means of wind-mills.

Dr. Lyster made a report on the proposition, originally made by him, that the board shall offer to examine candidates in sanitary science and its different branches, recommending that the board make preparations for examinations by its different committees on subjects assigned to them, and that certificates be given to those who ask for and sustain examinations. It was thought that the publication of the examination papers would tend to increase the interest and knowledge concerning the subject among the people generally, and that the examinations would tend to secure throughout the state a class of physicians especially intelligent on the subject of sanitary science, and the public could have proof of their qualifications by means of these certificates. If the people see fit to select such persons for health officers, it would react well on the interest of public health, which it is the duty of the board to promote.

Dr. Baker favored it, and suggested that schedules of questions in each of the several branches of sanitary science be prepared for this purpose. The secretary was directed to procure copies of the examination papers in sanitary science from different colleges in foreign countries.

A communication was received from Dr. Peters, of Tecumseh, inviting the board to hold a sanitary convention at that place. The board voted to hold two public sanitary conventions next winter, and each member pledged himself to make them a success. It is desired to procure at these meetings the greatest collection of sanitary utensils which can be obtained, from a common pie-dish to the most elaborate apparatus for heating and ventilation. The time and place for holding such conventions will be announced as soon as determined; and it is hoped that dealers in sanitary appliances will exhibit their wares, and describe their uses and advantages. Drs. Hitchcock, Lyster and Baker were appointed a committee to prepare for the details of these sanitary conventions.

The Secretary presented a report of work done in the office during the quarter. It included the distribution of over 1,000 copies of the sixth annual report, the printing and mailing of about 2,500 blanks for return of annual reports of health officers, and clerks of local boards of health. A circular, relative to diseases in Michigan in 1878, had been sent to each correspondent, and replies from 26 persons had been received, examined and filed. Meteorological observations had been taken at the office during the quarter. Meteorological registers and reports of diseases had been received from observers, to whom, also, the regular distribution of blanks had been made. Work had been done in compiling the weekly reports of diseases, and the meteorological data for 1878.

Books and Pamphlets.

DANGERS TO HEALTH, A Pictorial Guide to Domestic and Sanitary Defects, by T. Prigden Teale, Surgeon to the General Infirmary, Leeds. London: J. & A. Churchill, New Burlington-st. Toronto: Willing & Williamson.

This is one of the most practically instructive books we have ever taken up. It is, in very truth, a "pictorial guide," for its fifty-five illustrative plates may, of themselves, serve as a treatise on the department of sanitation treated of without

even a word of textual explanation. He that but runs may read, and even the most obtuse reader cannot fail to comprehend the aptitude and force of the author's exposition of the most usual defects and faulty arrangements in modern house construction. Not only should every house *proprietor*, but every proposing tenant, secure and study well Dr. Teale's book, for beyond all question in both these classes a most deplorable amount of ignorance and apathy obtains in regard to house drainage and ventilation.

We cannot perhaps in a brief notice of the work, better indicate its general purport and utility, than by transcribing some of the titles given by the author to his numerous well-executed plates. House with every sanitary arrangement faulty; the same avoided; flame of candle at the key-hole, and the lessons it teaches; waste pipe of kitchen sink untrapped, and passing direct into drain; kitchen sink carried untrapped into soil pipe of water closet; the same, corrected; defects in lavatories and baths, and their remedies; unsiphoned traps; housemaid's sink pipe passing untrapped into a soil pipe; water-closet faulty; faults corrected; "save all" trap beneath water-closet, with untrapped waste pipe acting as ventilator of soil pipe; rats and the tale they tell; dish-stone in cellar leading into a drain, no wonder meat won't keep; cess pool over-flowing, and results; broken junctions and results; common stone drain under tiled hall, leaking at every joint; "Jerry-builders" buying "seconds," a murderously instructive picture; drain made of seconds; manslaughter under an "alias"; road muck and midden refuse for mortar and plaster; six-inch pipe interpolated between two four-inch pipes; joints gaping from sinking of foundation; pipes laid with the flanges down-hill; newly laid drain blocked in syphon trap by stones, &c.; drain under a house, running up hill; drain "to be continued" sometime, (an abrupt conclusion at a solid rock, but a resumption with one joint beyond, to pass the Inspector); drains disconnected and mis-connected; poisoned by next door neighbor's drains; drain, making the best of a rock (going through by creeping over); economy in digging, at the expense of a fall in the drain (a too common trick); waste pipes cut off, but left open; hunting for drains, no plans (*a la* Dr. Workman at Toronto Asylum in 1853); terrace of the future on refuse of the past (plenty of such in Toronto); and many others of equal importance.

The titles of Dr. Teale's plates are left alone. Every one could be gleaned from his own fancy. Every one has complained of some vomit-derous frauds exposed in his 33rd, 34th, 35th, 36th, 37th plates, and the notes accompanying them should hardly have dared even to suggest a great amount of practical realities, in so moral and virtuous a community as that of England. We have seen some very fishy work done in Canada, but we do not believe that any contractor, or scamp housebuilder, has been detected in the road muck, or midden refuse in the making. As to the sins of plumbers, both in commission and omission, to say nothing of their ignorance and indomitable self-conceit, we deem it a work of supererogation to trespass on the patience of our readers with any exemplifications, for very few persons who have had the advantage of their intimacy can require additional instruction.

In concluding this notice, we have to express our regret that Dr. Teale appears to be unacquainted with the invaluable system of downward water-closet ventilation, now so generally well understood here, and first introduced in the Toronto Asylum, many years ago, by Dr. Workman. The simplicity and cheapness of this system, which should be its highest recommendation, we are sorry to say, do not seem to render it acceptable to plumbers, some of whom take care to complicate it, at considerable cost, in such an antagonistic manner as actually to nullify its efficiency.

A TEXT BOOK OF PHYSIOLOGY. By J. Fulton, M.D., M.R.C.S., England; L.R.C.P., London; Professor of Physiology and Sanitary Science in Trinity Medical School, Toronto, etc., etc. Second edition, enlarged and revised. Illustrated. Philadelphia: Lindsay and Blakiston. Toronto: Willing & Williamson.

The following review of the above work on Physiology appeared in the *Toronto Mail* of the 24th of May:—

Dr. Fulton has been so long and so favourably known as a teacher of physiology in the Provincial capital, that any work from his pen on the particular branch of the medical curriculum with which his name is more specially associated, bears an impress of authority that cannot fail to secure for it respectful consideration. There is little in general to be said of manuals of this kind, one text-

special law, scheme of treatment and mode of board of health. But in this instance Dr. Fulton has departed from the usual practice, and a cutting attorney will not fail to be grateful. It has been the doctor's aim, to compress into one volume as would be consistent with proper treatment of his subject, an amount of information which ambitious writers have spun out into unwieldy tomes. Thoroughness in construction is, of course, indispensable; and thoroughness is quite compatible with conciseness. The German author who began his history of the German people with the creation of Adam and Eve was irreproachably thorough: but he was also unnecessarily tedious. By a judicious blending of completeness and conciseness, Dr. Fulton has produced a book which must meet with general favor. He has shown himself a perfect master of the by no means universal, knack of "boiling down," while his successful experience as an instructor has been of material advantage to him in the matter of judicious selection. The result is a work which, within the compass of some four hundred pages of large print, covers the ground as effectually as older and more pretentious hand books, without sacrificing either smoothness of style, or completeness of information to conciseness. Another feature worthy of note is the large proportion of space devoted to histology—a subject the importance of which, in connection with the study of physiology, can hardly be overestimated. Many of the chapters of the book have been re-written since the appearance of the first edition, and considerable new matter has been added, bringing the work to a level with the most recent additions to the knowledge we possess of the phenomena presented by the human organism. The illustrations are limited to the mere necessities of the text, and several new ones are added to the usual stereotyped cuts to be met with in all works on this subject. Throughout the whole book the author has in each instance given, in the case of thermometric observations, both the Fahrenheit and Centigrade readings; and in that of the dimensions of the various histological elements, the measurements on both the English and the metric scales. Such a plan will recommend itself to the student, and is worthy of imitation until such time as the Centigrade ther-

mometer and the metric system shall have been universally adopted in scientific works. The appendix contains a number of useful tables of dimensions, specific gravities, etc.,—another acceptable feature. The Text Book is intended more particularly for medical students, who will find that in its compilation the author has been closely attentive to their needs, and has devoted much careful labor to smoothing the difficulties in their path.

THE NATIONAL DISPENSATORY.—Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines; including those recognized in the Pharmacopœias of the United States and Great Britain.—By Alfred Stillé, M.D., LL.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania; and John M. Maisch, Ph. D., Prof. of Materia Medica and Botany in the Philadelphia College of Pharmacy. With two hundred and one Illustrations. Philadelphia: Henry C. Lea; Toronto: Willing & Williamson.

This work is worthy of a more extended notice than the space now at our disposal will allow. The authors are both men of large experience, and we naturally expect a book of much merit, nor are we disappointed in that just expectation. The arrangement is most convenient, each article being alphabetically recorded. All medicines recognized by either the British or United States pharmacopœias as well as many unofficinal remedies are here included. In this latter respect, it differs from the United States Dispensatory. All the necessary pharmaceutical manipulations are fully explained. In regard to the therapeutical value of medicines, in most cases it is based upon clinical experience, physiological investigations taking a secondary place.

Dr. Stillé gives a decided preference for ether as an anæsthetic over chloroform, as being much safer. The larger number of deaths from chloroform than from ether, warrants him in arriving at this conclusion. The illustrative cuts are good, and the mechanical execution of the work all that can be desired.

ELEMENTARY ANATOMY, PHYSIOLOGY AND HYGIENE, for the use of Schools and families.—By Edward Playter, M.D. Editor of the Sanitary Journal. Illustrated. Toronto: Hart & Rawlinson.

There is much need of a good elementary work on the subjects of Physiology and Hygiene,

adapted for use in public schools. This the author has endeavored to supply in this little volume of 168 pages octavo, just issued from the press. The work is divided into two parts; the first embraces anatomy and physiology, and the second is devoted to hygiene, in which the author has taken special pains to make the subject interesting, and of practical value to pupils and non-professional readers. It is entirely free from technicalities, and as a text-book for schools, we have no hesitation in recommending it in preference to any of the text-books on this subject now in use.

EPITOME OF SKIN DISEASES, with Formulæ for Students and Practitioners. By Tilbury Fox, M.D., F.R.C.P., etc., and T. C. Fox, M.B., B. A. (Cantab), etc. Second American edition, enlarged and revised by the authors. Philadelphia: H. C. Lea. Toronto: Willing & Williamson.

The above work is a most excellent epitome of skin diseases. The present edition contains upwards of two hundred pages, which makes it nearly three times as large as the first edition. The authors are well known specialists on this subject, and this fact should enhance the value of the work. Among its pages will be found much that is useful to the everyday practitioner.

THE PRINCIPLES AND PRACTICE OF GYNECOLOGY.

—By Thomas Addis Emmet, M.D., Surgeon to the Woman's Hospital of the State of New York, etc. With one hundred and thirty-one illustrations. Philadelphia: Henry C. Lea. Toronto: Hart & Rawlinson.

In the work before us, the author gives us the experience of twenty-five years' active and extensive practice in one of the largest hospitals for women in America. It contains upwards of eight hundred pages, the result of accurate and laborious observation, from which the regular practitioner cannot fail to draw many useful hints in obstetric surgery. The work contains numerous brief histories of cases of interest, statistical tables, &c., which present in a small compass what would have taken pages to give in detail. With the exception of two or three plates, and some instruments, the illustrations are original, from drawings by the author.

OUTLINES OF MODERN ORGANIC CHEMISTRY. By C. Gilbert Wheeler, M.D., Professor of Chemistry Chicago University. Philadelphia: Lindsay & Blakiston. Toronto: Willing & Williamson.

This new work by Dr. Wheeler is very highly spoken of by both teachers and students who have

used it. It is wholly modern in theory and methods, and is found to meet the requirements of the present teaching in this department. The work is much needed in our medical schools, and it will fulfill a useful purpose, if by its attractiveness, freshness and originality it induces the student to take a greater interest in this important though much neglected branch of study. The basis of the work is in part Riches' manual, but the author has improved it, by adding to it the results of the latest researches, and has made it a truly valuable and practical work.

Births, Marriages & Deaths.

At Cumminsville, on the 15th ult., the wife of Dr. Wm. McClure of twin daughters.

In Toronto on the 2nd ult., H. L. Gilbert, M.D., M.R.C.S., of Sherbrooke, Que., to Ellen Marian only daughter of the late Rev. J. Ambery, M.A., Oxon.

On the 10th ult., D. H. Dowsley, M.D., M.R.C.S., of Clinton, Ont., to Miss Alice, only child of James Agnew, Esq., Kingston.

On the 23rd of April, of typhoid pneumonia, W. C. Hagerman, M.D., of Lynedoch, Ont., in the 34th year of his age.

At Cairo, Mich., U. S., June 3rd, 1879, Henrietta, beloved wife of Dr. Wm. Morris, Sr., aged 60 years.

** * Dublin Medical Press and London Lancet please copy.*

The deceased lady was a daughter of Capt. King, 28th Regiment, and sub-inspector of Her Majesty's Royal Irish Constabulary: sister of Dr. King, of Port Robinson, Co. Welland, Ont., who commanded the Welland Battery at the Fenian Raid in 1866, at Fort Erie, in which engagement he lost a leg: and sister of Dr. King, of Rugby, Eng., Staff Surgeon in the Royal Navy: and niece of Mr. Alex. Montgomery, late Lord Mayor of Dublin, Ireland.

Thirty-five years ago, Mrs. Morris, along with her young husband, came to this country, and settled in the village of Victoria, now Florence, in the Co. Lambton, where they lived and prospered for upwards of thirty years, then removed to Delaware near London, and afterwards to Cairo, Mich., on account of a portion of the family having removed there, and where one son was already in a lucrative practice, having followed in his father's footsteps, by choosing the medical profession.

As a wife and mother she had few equals; deeply devoted to her family and husband, she set an example of fidelity and devotion, long to be remembered by her many sorrowing friends left behind. Through all the pioneer life of her husband, she was his ever faithful companion and counsellor, ever ready to accompany him through rain and sunshine; by night or by day the summons to the bedside of the sick and distressed ever met a ready response in her sympathizing breast; and many can bear testimony to-day of this sympathy, having been partakers of its bountiful stores. Of her it may be truly said, she did not live for herself, but for others. May her future home be one of glory, where sickness and sorrow and death never enter, where all is peace and joy and love.

W. J. GRAHAM, M.D.

- St. Catharines, June 20th, 1879.

THE CANADA LANCET,

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Original Communications.

ON THE ACTION OF THE SO-CALLED "INHIBITOR," "ACCELERATOR" AND "DEPRESSOR" NERVES OF THE HEART.

BY THOMAS W. POOLE, M.D., M.C.P.S., ONT.

(Author of "Physiological Therapeutics.")

(Continued)

THE SO-CALLED "ACCELERATORS" OF THE HEART.

The sympathetic nerve derives its motor fibres from the spinal cord, through nerve filaments passing through the anterior spinal nerves to the corresponding parts of the ganglionic chain lying in front of the vertebral column. The connecting fibres between the two systems which supply the branches of the sympathetic nerve as accelerators, pass from the cord to the inferior cervical ganglion.* The distribution of the nerves of this ganglion to the cardiac plexus varies much in different animals. Thus in the frog no sympathetic nerves reach the heart, and the vagus is the only link of communication between it and the cerebro-spinal centres. In the dog and cat the vagus and sympathetic are united in a single trunk; † while in the rabbit and higher mammalia they are distinct, though intimately and variously connected through the interlacing of their branches. These differences serve to account for minor differences in the effects of experiments on these animals.

Dr. Burdon-Sanderson lays down the rule that "the pulse is retarded by *increase*, accelerated by diminution of arterial pressure;" † increase of arterial pressure attending arterial contraction, and lessened arterial pressure resulting from dilatation of the vessels. The rule quoted however is by no means an invariable one, and Dr. B. Sanderson's adjacent pages shew sundry exceptions. The effect

produced on the heart through the nerves we are considering, is much more uniform as regards blood pressure than as regards the frequency of the pulse, which under varying conditions of the animal may be frequent and strong, while in many cases increased frequency denotes cardiac weakness, so that as Prof. Kuss remarks, "the frequency of the pulse yields no indication as to the state of the circulation properly so called" (Lec. p. 168).

As the sympathetic has its origin in part in the medulla oblongata, section of the cord at the atlas necessarily affects this nerve and its ramifications, and the effect is to produce a fall in blood pressure (arterial relaxation). On the other hand faradization of the cord below the point of section, causes an increase of blood pressure (arterial contraction). Von Bezold found the heart's action increased in frequency after faradization of the cord, and regarding the faradic current as an excitant, thus apparently stimulating the heart, he applied the term "accelerators" to the nerves, which connect the cord with the cardiac plexus, through which this effect seemed to be produced. But Ludwig and Thiry showed that faradization of the distal end of the spinal cord, divided at the atlas, caused a rise in blood pressure in the systemic vessels after the *communicating filaments which through the sympathetic, connect the cord with the heart were severed*, showing that it could not be through the direct agency of the "accelerators" on the heart, that blood pressure was increased or the pulse accelerated. Ludwig and Thiry inferred from this that the cord has no real influence on the heart itself, but upon the peripheral circulating system.*

Ludwig and Cyon "proved by new experiments that this influence on the peripheral circulating system "is chiefly effected through the splanchnics, the great vaso-motor nerves of the abdominal viscera. Cyon has further demonstrated that this vaso-motor influence may be also induced reflexly through a centripetal nerve—to be hereafter referred to as the "depressor:" † and Dr. Burdon Sanderson in a special section devoted to the "functions of the accelerator nerves admits that V. Bezold was wrong in believing that the spinal nerves have any power of augmenting the energy of the heart's contractions, or of causing it to do more work in a given time." ‡

* Handbook p. 315. † Ib. p. 23

* (Prof. Kuss Lectures on Phys. (Duval Amory) p. 167). † Ib., p. 163. ‡ Handbook, etc., p. 231.

The question then arises, what is the explanation of the indirect effect of these nerves on the heart through the peripheral arteries, as shewn in the experiments on the cord referred to above?

We must here remind the reader, that while the chief vaso-motor centre of the sympathetic is believed to be located in the medulla oblongata, it has been shewn by physiological experiments that there are also vaso-motor centres in the spinal cord.* To say that these spinal centres are irritated and excited as a consequence of section of the cord in their vicinity, is only to interpret the result of section, as Physiologists are accustomed to interpret the effects of traumatic injury to nerve tissue elsewhere, (see preceding pages.) Excitation of the vaso-motor spinal roots of the sympathetics, is naturally enough transferred, through the connecting nerves to the contiguous sympathetic ganglia placed at intervals in front of the vertebral column, and from these to the vaso-motor terminal nerves, dilating the arteries with a consequent fall in blood pressure as related by the experimenters.

The effects of section of the cord, here considered, must not be confounded with those of "pithing," in which the spinal cord is destroyed, and the vaso-motor centres of course are destroyed with it. [As we have called attention, elsewhere,† a careful reading of Dr. Burdon-Sanderson's account of the phenomena attending "pithing" will show that the inference commonly drawn from that operation is erroneous, in that, while it is assumed that the entire vascular system is dilated (from paralysis of the sympathetic) it is really the venous system only which is relaxed, into which the blood has been driven from the arteries, which contract till they are as empty as it is possible for them to become. Here vaso-motor dilating power is at an end, and the inherent contractile power of the muscular coat of the arteries being no longer restrained, asserts itself in the contraction of these tubes, just as it does after the general death of the body, when vaso-motor and all other nerve power is extinct. Section of the cord below the medulla, on the contrary, is attended by dilatation of the arteries, as we claim, from excitation of the contiguous spinal vaso-motor centres in the manner mentioned.

We now come to the application of the faradic

current to the distal portion of the divided cord, We have elsewhere* quoted Dr. C. E. Radcliffe, F.R.C.S., etc., to prove that a continuous current of electricity so paralyzes the spine of a rabbit, that "the part between the poles may be cut, pricked, torn," etc., without occasioning pain. Whether the current was passed up the spine or down the spine, the result was the same so far as its *paralyzing action* was concerned.† What Dr. Radcliffe states here of the galvanic or continuous current, is equally true of the faradic, since both produce anæsthesia of nerve tissue, and the difference between the two currents is mainly of *degree*.‡

Faradization then, we claim to be inimical to nerve function, and that, applied to the distal portion of the divided spine, it paralyzes the vaso-motor sympathetic nerves at their origin in the cord; puts an end to the dilating power of their terminal branches, and as a result the arteries contract (from the inherent contractile power of their muscular walls) blood pressure is consequently increased, and as is otherwise the case when previously abnormally dilated arteries are reduced, in calibre (as by digitalis) the heart's pulsations are increased in frequency and in force.

From the foregoing physiological facts, we think the conclusion is inevitable, that the so-called "accelerators" of the heart have no direct influence on that organ, and really affect it so indirectly as to be unworthy of their name: that as a special motor power of the heart, (which contains within itself the springs of its own action,)§ they can be entirely dispensed with, since the functions they perform are simply the functions performed by the ordinary vaso-motor nerves everywhere throughout the body.

THE SO-CALLED "DEPRESSOR" NERVES.

According to Dr. Burdon-Sanderson, this nerve arises from two roots, one from the superior laryngeal (a sensory branch of the vagus) and the other which is less constant, from the trunk of the vagus itself. He says "it ends in the inferior cervical ganglion" of the sympathetic, but that from the ganglion its fibres may be traced to the connective tissue between the origin of the aorta and pulmonary artery," where it loses itself in the plexus of nerves" found there, which is no doubt the cardiac

* (Dr. Ott, Action of Medicine, p. 70.) † (Physiological Therapeutics.)

* Phys. Therapeutics. † (Lectures on Epilepsy, Paral. and Pain, pp. 64, 65). ‡ Handbook, etc., p. 274. § Drs. Beard and Rockwell, (Med. & Surg. Elec., 2nd Ed., p. 299, etc).

plexus of the sympathetic. Thus it has not been proved to enter the heart at all, though it probably does so. It is a centripetal nerve, and as a consequence its functional activity is not directed towards the heart, but towards the medulla oblongata.

To show how unworthy this nerve is of its present name, and how false is the idea naturally associated with it, as a "depressor" of the heart, we need only refer to Dr. Burdon-Sanderson again.* He states that neither section of this nerve nor faradization of its peripheral end, has any effects whatever on either the arterial pressure (in the carotid) or in the pulsations of the heart. If the central, or cranial end of the cut nerve be faradized, still there is "no change whatever either in the character or frequency of the pulsations; the only effects produced being diminution in pressure. In other instances there is perceptible slowing, but the variations of the two effects are never parallel." Further, "The diminution of the arterial pressure cannot be referred to any direct influence exercised by excitation (faradization) of the depressor on the heart, but to diminution of the resistance in the arterial system; *i. e.*, to relaxation of the minute arteries."† This conclusion is confirmed by other experiments to which we need not here refer.

Thus this nerve, like the vagus, has been shown to have no direct influence upon the heart, but to act centripetally on the medulla, and through this upon the cord and vaso-motor nerves. Cym has shown that this reflex influence reaches the splanchnics, and through them modifies the vascularity of the abdominal viscera.

It becomes necessary to enquire how does the "depressor" produce even this moderate effect on the peripheral circulation? Dr. Burdon Sanderson says of it:—"The depressor contains centripetal fibres, the function of which is to diminish the activity of the vaso-motor centre and thereby diminish the arterial pressure." On this view, the depressor is to be regarded as a centripetal inhibitory nerve, restraining the power of the vaso-motor centre in the medulla, and of course its "excitation" by the faradic current is held to increase its inhibitory power, and by thus counteracting the contractile power of the vaso-motor

nerves, it favors relaxation of the arteries, which result, on the accepted theory, is depending on vaso-motor paralysis, to which the exercise of this inhibitory power is equivalent.

On the theory we present, the faradic current, by paralyzing a sensory nerve (acting of course centripetally) induces reflex paralysis of the vaso-motor nerves, putting an end to the dilating power of these over the arteries, the calibre of which is reduced by the inherent contractile power of their muscular walls. It is quite true that faradization of a sensory nerve causes arterial contraction, and our theory is in full accord with the fact. But here is a nerve which resembles a sensory nerve, in that it acts centripetally, faradization of which *dilates* the arteries. Is our theory then at fault? If the depressor be a purely sensory nerve our theory is at fault. That the depressor is not a purely sensory nerve (although it acts centripetally) is shown from the stand-point of the physiologists themselves, by the fact that the inhibitory system of nerves is regarded by them as separate and distinct from the nerves of common sensation; and also for the reason that if an inhibitory nerve annuls the power of motor centres in nerves, it must itself possess motor power. No such function can be predicated of purely sensory nerves. An inhibitory nerve, even if it act centripetally, therefore differs materially in function from the proper nerves of sensation.

Again the effect of faradization on this nerve shows that it is not an ordinary sensory nerve, for the faradic current acting on sensory nerves causes arterial contraction, but acting on this nerve it causes arterial dilatation. Furthermore, faradization of a nerve trunk produces anæsthesia or paralysis, and not pain, in the nerve trunk (see quotation from Dr. Radcliffe, ante), and if pain be caused by it, the pain is produced through the agency of sensitive nerves in the tissue in which the faradized nerve terminates, the muscular fibres of which are thrown into vibratile spasms. When therefore Prof. Kuss states that faradization of the central end of the depressor nerve "is painful," the legitimate inference is that the painful sensation originates at the termination of the nerve fibres in the medulla. All that is necessary to produce this result here, is that the current should act on the contractile connective tissue of the medulla as it invariably does on such tissue elsewhere,

* (Handbook, &c., pp. 238, 291). † (Ibid., p. 292). (Prof. Kuss see p. 163). (Handbook, etc., p. 291).

when conveyed through a motor nerve. Irritation and excitation of this centre thus secondarily induced, reflected on the peripheral vaso-motor nerves dilates the arteries. Our theory is therefore consistent with the results, and the facts are again shown to be susceptible of explanation without invoking the aid of the inhibitory theory.

Here, then, is a series, not of crude speculations, but of authentic facts, drawn from the storehouse of physiology, which tend to confirm and establish the simplified view of cardiac innervation and control suggested in our "Physiological Therapeutics." It is evident, on direct and reliable authority, that neither the so-called "inhibitor," "accelerator," nor "depressor" nerves exercises any direct influence over the heart's action, and that whatever effect results indirectly from the excitation or depression of the functional activity of the vagi, the medulla, or cord, is to be explained through the corresponding reflex excitation or depression of the ordinary vaso-motor nerves. Consequently *names* hypothetically assigned to these nerves representing functions not discharged, are not only unnecessary, but mischievous, and should be expunged from physiological treatises.

If this view of the case were to be accepted, the very contradictory and confusing statements regarding the action of drugs on the nervous system in such otherwise admirable compilations on the subject as Dr. Ringer's "Therapeutics," would disappear, and much would be gained, not only theoretically but in the practical adaptation of drugs to the needs of the organism. To the fundamental error that electricity is an "excitant" or "stimulus" to nerve tissue, much of these contradictions are due, since it has warped the whole range of conclusions drawn from experimental physiology. Like other errors which have been authoritatively expounded, it will be difficult to unlearn. The duty of the profession, in the premises, is all the more urgent—not to leave to a future generation what ought to be accomplished by the present.

ENTROPION AND TRICHIASIS.

BY S. E. MCCULLY, M.D., WATERDOWN, ONT.

On June 30th, Miss M. came to my office, suffering from entropion and trichiasis. The history

of her case may be summed up thus:—Some ten years since, when quite young, she was treated for catarrhal ophthalmia by repeated applications of solid sulphate of copper, which induced extensive destruction of the conjunctiva of the lids, the cicatrix producing inversion. From this time the case has been one of misery, all or nearly all the pleasures of youth being either marred or stamped out by this wretched condition of things. All the natural lustre of the eye was gone, the patient groped her way around as if in partial darkness, the lids presented an unseemly heavy red appearance, and the pupils were dilated to their fullest capacity, the cornea being of a milky color and partially opaque. After a careful examination of the case, I concluded to operate. Before doing so, I seized the skin with a pair of toothed forceps, lifting it up sufficiently to evert the eyelid to its natural position, then carefully marked the piece I intended cutting out with a pen and ink, and with the kind assistance of Dr. McLaren who administered the ether, I proceeded to operate. I may here remark that in so far as the size of the excised piece is concerned, each individual case must be treated according to the extent of the inversion. In this case I removed an ellipse extending from angle to angle, its greatest width being $\frac{5}{8}$ ths of an inch. Chloric ether was used, and we gave her in all about two drachms, which rendered her quite insensible. I then seized the skin which I had previously marked, with a pair of toothed forceps, and with a pair of probe-pointed scissors cut away the piece, repeating this operation on the other eye. I then removed any little irregularities and at once closed the wound by four interrupted sutures in each lid. The wound was then covered with court plaster. A little vomiting from the ether ensued. In forty-eight hours the wound had healed by first intention, the plasters were removed and new ones put on, and in seventy-two hours from the operation I removed the stitches. The eye-lashes have put in an appearance and are growing out in good shape, and for the first time in ten years the patient is free from pain and annoyance. In this case the alacrity with which nature seized the opportunity offered her to clear up the cornea, was something really wonderful. On this, the 8th day from the operation, the patient can see to do fine needle-work, can thread the finest cambric needle with

ease and in a general way has nothing to complain of or wish for; whereas, before the operation, it was a laborious task for her to travel about in places where she was unacquainted. There are but few cases of traumatic or chronic entropion that cannot be cured by an operation. Should there be strong pressure on the eye-ball by shortening of the lid from canthus to canthus, it may be necessary first to cut through the lid at the external and internal angle of the eye, and then operate as just described; as soon as the wound is drawn together the cuts previously made through the lid will separate, and thus the lid will be once more set at liberty. The operator should be careful not to cut away too much, and not too near the cartilage. Should he cut away too much he produces deformity in the shape of an unseemly ectropion, and should he cut too near the margin of the lid the cartilage stands in the way of the needle in closing the wound. The success of the operation must depend on the causes of the disease. If the causes are traumatic, the operation skilfully performed will succeed. If chronic and from inflammatory causes, or from bad treatment of catarrhal ophthalmia or granular lids, the operator will have to remove more surface to counteract the influence of the contracted and indurated membrane beneath. If entropion arise from spasm of the lid, then the case is not one in which an operation is indicated. If from a long and severe illness, the patient is suffering from this malady because of absorption of fatty matter in the back part of the orbit, the indications are hematics and nitrogenous compounds. If from old age, little can be done to relieve the sufferer.

BULLET WOUND OF THE FACE; ANTI-SEPTIC SURGERY.

BY W. CANNIFF, M.D., M.R.C.S., ENG.,

(Attending Physician, Toronto General Hospital).

A case of bullet wound which occurred recently in my private practice, possesses some points of note which I think will make it interesting to your readers.

C. P., a lad of about 11 years, while yet in bed in the morning, was accidentally shot by his brother with a small revolver. I was called to see him about 8 o'clock, and saw him not long after

the wound was received. I found that the ball had entered the face immediately to the right of the nose, midway between the inner angle of the eye and the nostril. A puffy ridge across the face, towards the right angle of the lower jaw, over the upper jaw, but not over the lower, marked the course of the ball. A sister of the patient had informed me that she could feel the ball, and pointed out a spot immediately posterior to the angle of the bone. Upon examination, I had no difficulty in distinguishing its position. There was some tenderness at the spot. I ordered warm fomentations and informed the family I would shortly return with an assistant to administer chloroform, while I would cut down and extract the ball. It was about an hour and a-half before I could return to my patient, when I found that considerable swelling had taken place where the ball was situated, so that it could not be distinctly felt. Having no doubt as to the exact location of the ball, I did not hesitate to proceed with the operation. Dr. Fulton who had kindly consented to administer chloroform, like myself failed to distinguish the body. The patient took the chloroform badly, and repeatedly vomited. Having cut through the skin, I made my way through the cellular tissue toward the situation of the ball, with a director. The swelling meanwhile had increased. Reaching the angle of the bone, and not feeling the ball, I passed my right forefinger into the mouth and along the inner surface of the lower jaw to the point of the incision. With my other forefinger in the wound I at once felt the bullet, between my two fingers. I was on the point of dividing some tissue yet covering the ball, when the patient began again to vomit, and continued straining for some time. I fully expected to have the ball in my hand in a moment more; but upon examining the part no ball could be felt. I explored with the greatest care through the incision and by the mouth, but could not find the ball. It had completely eluded me. Dr. Fulton likewise searched for it, and was equally unsuccessful. I continued the search for a time without incision and then had, much to my disgust, to give it up. Dr. Fulton had not at any time felt the ball, and I was not surprised that he felt some doubt as to my own sense of touch. Being certain that I had held it between my fingers, I thought perhaps it had fallen from the wound while the patient was strain-

ing. But the ball could not be found. Three weeks later the wounds having healed, upon examining the part, I again felt the ball in the old situation; although a few days before it was not there. The following day I pressed the ball outside the bone and readily removed it by incision. It was a small conical bullet with the point slightly turned and flattened by striking the upper jaw where it entered. Upon examination, I found that with the mouth open it was possible for the ball to have passed inside the lower jaw to the point where it was found. The mysterious disappearance of the body at the first operation, can only be accounted for by supposing that the violent contraction of the muscles during vomiting removed it to a point beyond the reach of the finger.

The wound of the face made by the ball was treated by applying a poultice for a day or two, and then water dressing. The wound healed without a drop of pus forming and with but little watery discharge. This would have been a striking proof of the astonishing value of antiseptic gauze, and application of germicides, had I not omitted to employ them.

HYPERPLASIA OF THE UTERUS, WITH CASES AND TREATMENT.

BY JAMES CATTERMOLLE, M.D., L.S.A., LONDON, ONT.

CASE I.—Mrs. A. F., aged forty-two years, a large-framed woman, naturally very robust; prior to her present illness had enjoyed excellent health, but now presents a blanched and exsanguine appearance—is much prostrated by long continued uterine disorder; she is the mother of three children the youngest of them is nine years old; from the birth of this child she dates the commencement of her present malady.

The patient states that she had a miscarriage five years ago, which added to her trouble, for soon after this event menstruation became excessive and irregular—with occasional discharges of blood in the intervals, rendering her very anæmic. This irregular flow continued for three years, until December, 1876—when the loss became almost constant, the recumbent position had to be observed to avoid continued hemorrhage. This condition persisted for the following seven months, confining Mrs. F. to her bedroom. The patient

during this period had the attendance and advice of four different medical gentlemen, who mostly prescribed tonics, anodynes and astringents, but she received scarcely any local treatment. However in July, 1877, the discharge somewhat lessened till near the end of December when it again increased. The oozing of blood tho' not profuse was constant, and the patient now became much exhausted. In this unpromising condition I first saw her on January 30th 1878 after her long affliction of above five years duration.

Having introduced a large vaginal speculum, a fungoid growth of about eight lines long was seen to project from between the lips of the os externum; this I found to be attached for about the same distance to the floor of the cervical canal within the orifice. I excised the little fungus—the bleeding soon ceased—applied acid nitrate of mercury twice, and there was no return of the growth. In consequence of the anemic and exhausted condition of the woman an intra-uterine examination was deferred—generous and nourishing diet was ordered, and injections of tannic acid and alum were used twice daily, from which considerable benefit was derived. Unavoidable circumstances prevented me from seeing Mrs. F. again until April 3rd, when I found that hemorrhage had recommenced, the seat of the fungoid growth had quite healed over, and a proper examination was now obtained. Laminaria tents were employed for two days, but in consequence of the tense and thickened state of the upper part of the cervix the finger could only be passed just sufficiently above the inner os to discover that a granular state of the mucous membrane of the uterine cavity existed; small doses of fluid extract of ergot were now ordered to be taken three times a day. The uterine cavity was carefully mopped with strong nitric acid by means of cotton wool swabs passed through small glass canulas every third or fourth day until four dressings had been applied, without however materially diminishing the sanguineous flow. Two weeks after this, thirty grains of the sulphate of zinc were passed up through a glass tube well into the fundus and allowed to remain there, only causing a slight uneasiness for about half an hour. In a few days the womb was well wiped out with dry cotton swabs and twenty-five grains of the nitrate of silver introduced and left in the cavity to dissolve; this caused a moderate amount of pain for nearly two hours—

but no appreciable difference in the amount of discharge. The above plan of treatment extended over three months—during which several different remedies were employed at moderate intervals, with the effect only of very insufficiently diminishing the abnormal flow—the hyperplasia still existed in the cervix and anterior portion of the uterine wall. The patient who at first objected to a cutting operation, now at length became willing to submit. The inner os having been sufficiently dilated, and finding the anterior corporeal wall much thickened, I lightly incised its surface in three places—allowed the parts to bleed for a few minutes, and after more deeply incising the neck—freely mopped both the uterine cavity and cervix with fuming nitric acid. A cotton-wool tampon was passed well into the vagina and a good opiate administered, to be repeated at night if necessary, the tampon to be changed every twenty-four hours for three days. The bleeding was not profuse, and completely controlled by the tampon. The patient had scarcely any pain after the operation, and soon improved in spirits—and there was no recurrence of hemorrhage. In about three weeks, menstruation came on and lasted four days – and for the following eight days the patient was quite free from any discharge, when suddenly a sero-sanguineous oozing took place; this however was completely subdued by swabbing the uterine cavity with the acid nitrate of mercury, every second day—six applications sufficed for its cure. In order to restore the tone of the parts so long affected, astringent injections of alum and tannic acid were daily used for many weeks. During the last ten months there has been no recurrence of hemorrhage—the health of the patient is very good, and she assists in the domestic business of the establishment.

CASE II.—In July 1876, I was requested by my friend Dr. Payne of this city to meet him in consultation in a case of uterine disease of seven years standing. His patient Mrs. H. a lady of delicate constitution, eighteen years ago accompanied her husband, who went with his regiment to India—there she had two or three children. For the last ten years her health had been much broken by leucorrhœa, irregular menstruation, and frequent uterine hemorrhage—which for many weeks have been almost constant. During the above long period, Mrs. H. from time to time had medical

advice, but until she came under Dr. Paynes' care had not been examined by aid of vaginal speculum. The doctor discovered the existence of a hypertrophied condition of both the cervical and corporeal parenchyma of the organ and saw that nothing short of active measures were likely to benefit his patient. After free dilatation with sea-tangle tents—the uterus was well drawn down with long narrow vulselli, the finger passed well into the cavity, discovered anterior and lateral bulging of its walls with slight roughness of the mucous membrane. Drs. Street, Payne and Niven here examined the condition of the organ—and rendered valuable assistance during the operative proceedings. The patient being now chloroformed—the womb drawn low down as stated, I carefully incised the bulging walls with a long narrow knife, and on withdrawing the instrument, also the inner os so as to render it freely open—and altho' the loss of blood was not great from the incised parenchyma, it was deemed prudent to defer the intended division of the cervix for a few days in consequence of the lady's extreme weakness. The incised parts were brushed over with fuming nitric acid—the vagina thoroughly plugged and a full opiate administered.

Four days afterwards the cervix was freely divided on both sides, and the progress of the patient was highly satisfactory. For some weeks following, the mucous membrane of the cavity was swabbed about every eighth day with nitric acid, and under the skillful care of Dr. Payne a good recovery resulted, and now nearly three years after the operation the lady is in excellent health.

CASE 3.—In the fall of 1878, in consultation with a young physician of good standing in the city, I saw Mrs. W. aged thirty-six; many years married, but no family. For several years she has been much troubled with pains in the uterine region, back, and hips, extending down the thighs, leucorrhœa, irregular menstrual flow, and frequent and sudden hemorrhage. Various escharotics have been applied to the uterine canal, and also good constitutional treatment adopted from time to time by medical gentlemen under whose care she has been placed. I found the os and cervix much hypertrophied though softer and more pliant than in many similar cases.

After dilatation with sea-tangle tents, some slight amount of thickening was discovered in the left lateral corporeal wall, and also a granular con-

dition of the mucous membrane. We concluded to continue intra-uterine medication, and many applications (through glass canulas) of nitric acid were made to the diseased surface, with the effect of subduing the discharge, for nine weeks, when in consequence of recurrence of hemorrhage, I was again called in and now found our patient much exhausted. The doctor had arrested the bleeding by the tampon. The following day we withdrew it, and examined per speculum—found hyperplasia of cervix much increased, especially the anterior lip; this we punctured freely, as well as incising a portion of the cervix, hoping this might prove sufficient to break the neck of the malady. The patient improved and went on well for another period of eight weeks, when hemorrhage again set in. Considering that hitherto the hypertrophied parts had not been sufficiently incised, the canal was again well dilated, and a long narrow bistoury passed far enough through the inner os to reach the tumoid part of the uterine wall, which was now carefully incised, and the cervix divided on both sides. The acid was freely applied, the vagina securely plugged with cotton-wool, and the usual opiate administered. The patient remained for a week very low and feeble, but at length she satisfactorily recruited, and is now quite hearty and vigorous.

REMARKS.—With some of our modern gynecologists, it is quite the fashion (for even gynecology has its fashions) to ascribe the existence of hyperplasia almost solely to imperfect uterine involution, yet it is well known to practical men that there are many other morbid conditions of the uterus which may have the effect of producing hypernutrition of the parenchyma of the uterine walls. Even nulliparous women are not exempt from the disease—with them it is not unfrequently caused by excessive sexual indulgence.

Again, it is too much the fashion to fix hyperplasia in the connective tissue, as it is yet unexplained why that structure should be more prone to overgrowth than the muscular. It is also the fashion of a few modern writers, to assert that such is the overgrowth of the aforesaid connective tissue, that in some cases the muscular is quite pressed out of existence. Now it has been for some time well known by pathologists as well as by many reliable practitioners, who have had opportunities of making microscopical and searching examina-

tions of these diseased structures,—in many cases, that both tissues are about equally increased in volume, that on the whole the overgrowth of the connective prevails over the muscular, in a few cases only.

The disease may extend from the fundus down to the labial end of the cervix, indeed the cervix is occasionally so much tumefied as well as elongated, as to mechanically interfere with defecation. The os tincae may even be forced down to the pudendum. In those cases of hypertrophy, or rather hyperplasia in which there are frequent hemorrhages, it is supposed by some gynecologists—and with a fair show of reason, that the muscular element prevails in amount, and that it not only gives rise to leucorrhœa, dysmenorrhœa, excessive menstruation, but also to frequent attacks of interperiodic hemorrhage, and that this miserable condition, unless checked by active measures, may last for months or even years, producing results similar to and almost as disastrous as, the existence of interstitial or submucous fibroid. As the disorder proceeds, the mucous membrane of the uterine cavity becomes granular, and sometimes, though rarely, studded with small vascular fungi; these occurring in the cervix occasionally protrude through the os into the vagina. To practitioners accustomed to the use of the sound, a careful examination of the uterine cavity will generally reveal the nature of the disease. Should any doubt exist, and the cervix be not too dense and tumefied to admit of dilatation by tents, the uterus may be drawn down low enough for a more thorough search, and when hyperplasia, (*id est* non-capsulated fibrous growth of the parenchyma) exists, from its smooth and slightly bulging surface, the surgeon with his well educated finger will be enabled to distinguish it from the regularly defined and capsulated form of the disorder, commonly understood as uterine fibrous tumor.

I think there is sufficient reason to suppose that hyperplasia and uterine fibrous tumor are only two varieties of one and the same disease; their elementary composition is the same, their sequences are similar, and they are alike amenable to the same plan of treatment. In severe cases of the hyperplastic form of the disorder, scarification, puncture, and even incision of the tumoid walls of the cavity, with division of the cervix, may be necessary, after the manner of Baker Brown. It

may be worthy of remark that the method of this justly celebrated surgeon, differs but little from that of the Hakins of India, who for many centuries have used means not very dissimilar, for the dispersion of tumors and swellings in all parts of the body. In addition to the above named surgical measures, the free application of escharotics, will prove the most reliable means at our disposal, and will, in the majority of these tedious cases, effect the much desired cure.

Correspondence.

To the Editor of the CANADA LANCET.

SIR:—The Ontario Medical Profession have with commendable zeal attempted to purge their ranks of quacks and imposters, but in their efforts to do good they have overleaped the bounds of propriety and common sense, and are about to make the "Ontario Medical Council" an engine of self-destruction.

I see by a late number of the *Canada Lancet*, that the Council has imposed a tax of \$400 on all persons who may wish to practice medicine and surgery within the bounds of Ontario. This simply amounts to prohibition, and if the Council attempts to carry out this enormous charge, it will be a tacit acknowledgement that it is incompetent to perform the duties that were expected from this important body of medical men.

It is useless for the Council to attempt to build a Chinese wall around the Province of Ontario, and defy communication with the outer world. I look upon the medical profession of the Dominion of Canada as a body of intelligent men, ever ready to discharge their duties in all that tends to elevate our noble profession, and I cannot believe that this step towards "trades-unionism" will be sanctioned by the majority of the Canadian medical profession. As a resident at the time, of one of the Maritime Provinces, I took an active part through the press and otherwise, in advocating the Confederation of the Provinces. I was also a member of the Medical Convention that met in Halifax, Nova Scotia, in 1867, for the purpose of sending delegates to the "Dominion Medical Association" that met in Quebec, and in consequence of great agitation in regard to the "Confederation Act," I was not surprised to find a spirit of isolation manifested at that time; but at

this late date, why does a Medical Council in one of the Provinces arrogate to itself the propriety of preventing all legal and regularly qualified medical practitioners or British graduates from practising in Ontario unless the sum of \$400 be paid to the Registrar? Perhaps this most learned, wise and ancient Council has set itself up as a "Medical Baal" before whom all of the disciples of Esculapius in other countries must bend the knee and pay tribute. I think in this enlightened age that it is well enough for the Medical Council in each Province to establish a reasonable curriculum and standard of education, so that the science of medicine may be advanced and the dignity of our profession upheld, but to place legally and regularly qualified practitioners and British graduates on a par with ignorant old "midwives, quacks, and charlatans," is a step in the wrong direction. Time is only wanted to consign all such "old-fogy" notions to "the tomb of all the Capulets."

Yours truly,

R. RANDOLPH STEVENSON, M.D.
Prince Edward Co., Va., July 8th, 1879.

DIGITALIS COMBINATION IN PUERPERAL AND SCARLET FEVER.

To the Editor of the CANADA LANCET.

SIR,—I herewith enclose for publication a letter received from Dr. Wood, of Faribault, Minn., of June 25th, 1879, on the utility of the digitalis combination in puerperal and scarlet fever.

Yours truly,

WM. KERR.

Galt, July 15, 1879.

He says:—My partner and myself have succeeded in saving *all* of our puerperal fever patients since we began using your medicine, except one in a dying condition when first visited. We have administered it in six cases besides the three reported by me in the *Edin. Med. Journal* in 1877,* and in each case the relief was quick and sure. Three of them had been given up by their medical attendants. I honestly think that it *can save every case of puerperal fever*, and that every medical man ought to use it. I have advised a number of my western brethren to prescribe it, and they have done so with perfect satisfaction.

* Republished in the CANADA LANCET, July, 1878.

You asked the effect of the medicine in scarlatina. I give one instance; a girl eight years old, ill eight days, attended by two medical men, comatose, picking the bedclothes, subsultus, dry cracked tongue, pulse 140—small and intermitting, œdema of legs, badly ulcerated throat, scanty urine. We gave three grains of Dr. Kerr's digitalis combination every hour; in twelve hours she was better, and four visits comprised our attendance. She had a nice recovery, with only very slight albuminuria.

Many thanks for knowledge of the medicine which has enabled me to save valuable lives, and best wishes for continued and deserved success.†

To the Editor of the CANADA LANCET.

SIR,—I was much pleased with your comments in the June number of the *Lancet*, in regard to the late meeting of the Ontario Medical Council. Your remarks thereon are the reflex of the sentiments of the profession in the country, so far as I have been able to ascertain. In regard to the position of Dr. Aikins as treasurer of the Council, it is much to be regretted for his own sake that he should allow himself to be made the subject of adverse criticism by adhering so tenaciously to the paltry office of treasurer, the fees of which are not more than \$150 or \$200 per annum, as he is by no means needy. It is manifestly unjust to the other schools of the Province that he should hold the office, as it undoubtedly gives him an opportunity of "unduly influencing" young students, especially at the commencement of their course, in the selection of the school in which they are to prosecute their medical studies. It is very easy for him to say to the intending matriculant who appears before him, or with whom he corresponds, that he would be happy to see him when he comes to Toronto to attend college, or "call upon me when you arrive and I will be happy to give you any assistance you may require." A little kindness to an entire stranger, goes a long way with some, and I have no doubt that many who had not fully made up their minds where they should go, have been induced to attend Dr. Aikin's school by just such means. Dr. Aikin's explanation to the council was

most damaging to himself, and I am surprised that his statements should have passed unchallenged. If he is correctly reported he said that he had only received fees from *three* students. If so, who transacted with the students? Was it his son, or was it some obsequious member of the Faculty of his school? The council had a right to ask these questions and demand an answer. In the last number of the *Toronto School Journal* I observe that it claims that Dr. Berryman's motion "that no permanent officer of the Council should be connected with any of the schools," was voted down by an "overwhelming majority." On reference to the proceedings, I find that the vote stood 7 for to 11 against the motion, and I fail to see where the "overwhelming" comes in.

Yours, &c.,

July 10th, '79.

JUSTICE.

MEDICAL ETHICS.

To the Editor of the CANADA LANCET.

SIR,—Supposing that a fellow-practitioner is in the habit of dressing sound limbs as fractured ones, and that I am absolutely certain that he has done so more than once, would I be justified in exposing his imposition, and quackery, and by so doing would I be committing a breach of gentlemanly conduct, or violating the rules of medical etiquette? By giving your opinion in the next issue of your valuable *Journal*, you will oblige

Yours respectfully,

WILLIAM GRAHAM.

Brussels, July 9th, 1879.

[One is always justified in exposing wilful wrongdoing, no matter by whom, or under what circumstances, but care must be exercised in distinguishing between chicanery of the kind here referred to, and error of judgment in diagnosis.—[ED. LANCET.]

NEWSPAPER ADVERTISING.

To the Editor of the CANADA LANCET.

SIR,—I desire to correct an error which has occurred in the last issue of your valuable *Journal* in reference to a statement in an article copied from the *Huron Expositor*, in which it is asserted that the operation of tracheotomy performed by Dr.

† The composition of this medicine was first given in the *Montreal Medical Chronicle*, 1853, subsequently in the *Edinburgh Medical Journal*, 1865, and in several numbers of this *Journal*, commencing with that for August, 1873.—Ed.

Vercoe of Seaforth, was the first of the kind performed in this section of the country. Dr. Worthington deserves the credit of performing it successfully previous to the one performed by Dr. Vercoe—though he did not publish it in any of the local papers by way of advertising himself. Dr. Hurlburt of Brucefield also performed it successfully, and I understand that Dr. Graham of Brussels likewise operated with a good result—though *unfortunately* neither of these gentlemen *advertised* their operations through the columns of the local press. We have heard it reported that medical men in other parts of the country, such as Goderich, Wingham and Exeter have also performed the operation. Hoping you will correct the error in question and give “honor to whom honor is due.”

I remain yours etc.,

TRUTH.

July 15, '79.

Selected Articles.

PLACENTA PRÆVIA; POST-PARTUM HEMORRHAGE; AND ACCIDENTAL HEMORRHAGE.

CLINIC BY ELLERSLIE WALLACE, M.D., PHILA.

Placenta Prævia.—This is the name bestowed upon the position occasionally occupied by the placenta, *i.e.*, when it lies over the internal os uteri, so presenting a bar to the onward progress of the child and necessitating the occurrence of more or less hemorrhage when the woman goes into labor. As the internal mouth of the womb begins to dilate it tears itself away from the lower segment of the placenta and the blood of the mother flows.

As early as the middle of the sixth, or beginning of the seventh month, an abnormal discharge of blood may occur from the womb, but usually the woman pays no attention to this, or if she is overtimid she may perhaps send for you. When you arrive she tells you that she has had a show.

In such an instance as this do not proceed at once to make a vaginal examination, but if the bleeding still continues put the patient to bed and keep her quiet, administering from gr. $\frac{1}{2}$ to gr. $\frac{2}{3}$ of opium and grs. ij.—ij. of sugar of lead in f. $\frac{3}{4}$ ss. of the infusion of roses, if it be found necessary. We do not know why hemorrhage should occur at such an early stage. As a general rule, in such cases all you have to do is to keep the patient quiet and bide your time.

Three or four of these shows may occur, and you

may have but slight trouble in stopping them until the neck of the womb begins to dilate in earnest, and in so doing tears the placenta loose from the uterine sinuses. In such instances, although the os uteri is but ever so little open, the hemorrhage is likely to be free.

If this severe bleeding persists, and the woman's condition becomes serious, proceed at once to make a vaginal examination. Pass the finger into the vagina. The external os uteri may or may not be taken up. However that is, you will at any rate find that the neck of the womb has softened, and you will be able to feel the placenta presenting at the inner mouth, and imparting to the fingers the sensation of a piece of raw beef.

When the os uteri is no larger open than the size of your thumb, the blood will pour out and the woman will die in a few moments unless she is properly attended to. If you can get the child out of the womb, and give it room to contract fully, all the danger is over. But how is this to be done?

You not only feel the placenta presenting, but you also see that it is bleeding profusely. How is this hemorrhage to be stopped?

One says, introduce the finger into the uterus and separate the placenta from all of its uterine attachments. In the first place your finger is not long enough to do the work, and if it were long enough the woman would bleed to death before the placenta was half removed. I cannot imagine why so great a man as Simpson should give such advice as this.

Another says, tear away an edge of the placenta and deliver the child. If you do this you will most certainly deliver a dead child, for the hemorrhage caused by so extensive a laceration of the placenta is sure to kill the child.

I might argue for some time and with much force upon the various methods of treatment which have been proposed, were it not that I believe them all to be utterly futile and of no service. To my mind the question lies in a nutshell. We know that if we cork a bottle and turn it upside down, after filling it with water, that the water cannot escape. Upon this same principle, by corking the vagina we can stop the flow of blood and keep it within the woman's body.

My explicit advice to you in cases of placenta prævia is to tampon the vagina with sponge tents at once. If you cannot procure sponge tents, pack the vagina and mouth of the womb with bits of sponge or rags.

Well, we will imagine that you have been called to see the case in good season, and that you have stopped the rush of blood by stuffing the vagina full of sponges, or sponge tents, or bits of rags, or what-not. What are you to do then? Put on a T bandage and sit down and await developments.

Some say that this is all wrong; that if you do

this the blood will still well away and dissect the placenta loose, and so allow internal hemorrhage, a much more dangerous form of hemorrhage than that which take place openly. Do not believe it. You will find it troublesome enough to tear away a placenta from its uterine attachments with your hand; how impossible then must it be for any force of mere blood to dissect it away. The placental adhesions are very tough and strong.

Therefore I say plug up the vagina thoroughly and sit down and rest yourself, and send for a friend to share the burden of responsibility with you; or, if you are thrown entirely upon your own resources, plug the vagina and sit down and wait until you see fit to remove the plug, so as to examine if the mouth of the womb has dilated sufficiently to enable you to insert your hand into the uterus and break up the remaining placental adhesions and turn the child and deliver it.

When are you to know that this time has come? When the tampon begins to protrude from the vulva, and when it cannot be pushed back though much force be expended.

I remember a case which I saw in consultation with a friend, where, after waiting for a long while, we found the os uteri only about two and a half inches open. I passed my hand in and detached a small arc of the placenta and delivered the child in such a short space of time that the whole amount of blood lost was only four ounces and a half.

Some physicians prefer to use a Barnes' dilator instead of sponge tents, but we do not all carry Barnes' dilators about with us. A Barnes' dilator filled with air forms a most excellent plug for the vagina.

But you are still sitting beside your patient and waiting for some bearing down pains. Explain her condition to her family, but do not think of saying a word to her about it. Speaking of bearing down pains, the mere presence of the plug in the vagina will very often excite them. The presence of a great mass of sponge, or rags, or bits of handkerchiefs, or what-not in the vagina will produce rebellion of the womb and the woman will at once bear down.

Make it a point never to leave the house of a woman with placenta prævia until either all the danger is over, or at least until you can get some other competent and trustworthy physician to take your place. And follow in every case the rule which I have already laid down for you—*never remove the plug even for an instant, until it begins to protrude*. So long as the vagina is well guarded by tampons the woman is safe; even if you have to sit at her bed-side twenty hours waiting for developments.

Bitter hours these will be to those of you who may be forced to live them out. No man need want to attend a case of placenta prævia—ten times worse than puerperal convulsions is it.

Never wait longer than ten hours before changing the tampon, taking out the old sponges soaked with blood and serum and placing new ones in their stead. Always make it a practice to carry a supply of sponges about with you in your country practice.

Why is it not proper to leave one set of sponges in the vagina more than ten hours? Simply because they become frightfully offensive and are liable to poison the woman's system. Before removing the old sponges have the new ones well greased and roll several of them up together.

Delivery must be made with great deftness and wonderful activity in these cases. Grease the hand well, pass it well into the uterus, forearm and wrist acting as tampons, separate as much of the placenta as is necessary, the least the better. Put your whole hand into the womb and turn the child. You can not turn a child under such circumstances with two fingers. Get above the placenta and feel round until you get hold of both legs, and moving as rapidly as may be without unduly exciting the uterine contractions, turn the child and bring it down feet foremost. *Hurry the labor for the sake of both mother and child. Deliver just as fast as you can without undue haste.*

The minute the child is born go right up into the womb and clear the placenta away and make the uterus contract by some of the means at your command. The placenta delivered, twist the membranes up into a rope, so as to be sure that you have left nothing behind. Then put on a bandage round the patient's abdomen, and go home and thank God that you have saved the mother's life if not the child's.

Remember what I have said to you. In placenta prævia the rule is tampon the vagina and mouth of the uterus immediately with big pieces of—well, of whatever is handy. Afterwards, while you are at work separating the placenta and feeling about for the child, get some one to push the womb well down from above, and always give a dose of ergot the moment you get hold of the child's legs. The lower part of the womb does not have half so much contracting to do as the upper after the placenta is separated. Be sure to secure complete contraction, otherwise you will have very serious leakage of blood.

If you tampon the vagina in post-partum hemorrhage the woman will die by internal hemorrhage after delivery. Never tampon except in a little bit of an abortion. Why, gentlemen, the womb, when relaxed, will hold a dozen pints of blood or more, and what woman can lose that quantity of blood in addition to the hemorrhage attending labor and live? The contracted fibres of the uterus, unless they be like steel, cannot resist the welling blood.

There is another form of hemorrhage occurring before labor and known as accidental hemorrhage.

This comes from the membranes inside of the womb. You put your finger into the vagina and find the mouth of the womb but ever so slightly open, and yet a stream of blood is slowly trickling down and out. What has happened here? The placenta is not presenting at the mouth. Why is there bleeding?

The carriage-wheel falls suddenly into a deep rut while the woman is driving or she slips off the step of the carriage, or a toad jumps out into her path, and causes a sudden shock to the nervous system and she bleeds. What has caused the bleeding? The jerk in one case, the mental shock in the other, has concussed the great system of nerves which preside over uterine action, and owing to a sudden irregular contraction of the uterus the placenta has become separated at some point, and from all the torn uterine sinuses the blood flows and runs down between the uterus and its membranes and so out by the vagina. This is what is called accidental hemorrhage, and you cannot put the placenta back and restore the continuity of its blood supply. What are you going to do? Why, if Mahomet will not go to the mountain, the mountain must be brought to Mahomet. If the bleeding is not stopped the woman will undoubtedly die, and if you tampon the vagina, the blood still continuing to flow from the open sinuses and corked up into the womb, will cause internal hemorrhage without any sign. You must make the womb come to the placenta, as the placenta cannot be made to go to the womb. You must rupture the membranes and so cause the womb to contract and settle down upon the placenta. The uterus, emptied of the amniotic fluid, will cling close to the body of the child, adapting itself to the foetal contour, and will bring the placenta down on the top of the child, and so compress it, and put an immediate stop to the hemorrhage.

In placenta prævia p us the vagina; in post-partum hemorrhage make the womb contract; in accidental hemorrhage rupture the membranes.—Hosp. Gazette.

BILIARY CALCULUS REMOVED BY OPERATION FROM THE GALL-BLADDER.—Mr. Bryant read notes of this case at the Clinical Society, London (*Brit. Med. Four.*) The patient was a single woman, aged 53, who was admitted into Guv's Hospital, under Mr. Bryant's care, in July, 1878, with two discharging sinuses of three years' standing, following an abscess, which had been previously forming for two. At first, the sinus was laid open, and pus alone escaped; but subsequently, as bile flowed in quantities from the wound, an exploratory operation was performed, and, at a depth of two inches, a biliary calculus, one inch long, turned out of the gall-bladder. Everything went on well after the operation; and although bile continued

to escape from the wound for about two weeks, the parts quite healed in about four months, and the patient left the hospital cured. The author brought the case before the Society as an encouragement to surgeons to apply their art in like or allied cases, for he was well prepared to support the suggestion of Dr. Thudichum, made twenty years ago, "that gall-stones might be removed from the gall-bladder through the abdominal walls"; and he pointed out that, under certain circumstances, the operation was justifiable when the sinuses by their presence were setting up inflammatory and suppurative changes about the gall-bladder, without any obstruction to the bile-ducts, as well as in that more serious class of cases in which the cystic or common bile-duct was obstructed, and dropsy of the gall-bladder, with jaundice, complicated the case, as shown by the cases of Dr. M. Sims and Mr. G. Brown. Mr. Hulke said there was no shadow of doubt as to the propriety of the treatment in Mr. Bryant's case. He simply rose to say that the whole question had been exhaustively treated in an early number of the *Mémoires de Chirurgie* of about the year 1706. In a case there discussed, the stone was withdrawn by the forceps, and the author drew an analogy between it and the operation of lithotomy.

THE VARIOUS APPLICATIONS OF CALCIUM PHOSPHATE IN MEDICINE.—The works of M. Dusart have contributed largely to the spread of the use of phosphate of lime for therapeutic purposes. The importance of this substance is shown by the fact that phosphate of lime is in largest proportion in those animals whose activity is greatest, and whose temperature is highest. Phosphate of lime administered in an insoluble state passes along the alimentary tract, and is for the most part ejected with the fæces without causing any marked change in the animal economy. An entirely different action takes place, however, when the phosphate is dissolved in lactic acid. Under the form of lacto-phosphate, it stimulates the function of nutrition, whether in the adult or in the infant. In the latter under the influence of this substance the weight of the body undergoes a regular and progressive increase. Whilst exercising this general recouping influence, lacto-phosphate of lime exerts a special effect upon the osseous system, in which it causes an increase of hardness, or in cases of fracture, consolidation. This double action is the basis for the therapeutic applications of lacto-phosphate of lime. In rickets, M. Dusart finds that in every case in which the diet, though sufficient in quantity, was unsuited to the digestive organs, the addition of lacto-phosphate of lime caused rapid improvement. Very interesting observations upon this subject have been collected in the large hospitals of Paris. In wounds and fractures as in the preceding case lacto-phosphate of lime acts by its

invigorating power and by its special action upon osseous tissue, to which it carries the calcareous salt or reparative material. Its employment is chiefly indicated according to Dr. Paquet in those cases in which there exist deeply-seated disturbances of the functions of nutrition. The result, which is all but constant, to be obtained from this method of treatment is a marked diminution in the usual length of the period of consolidation. Easy pregnancy, constant appetite, a well developed and vigorous child, a rich milk and abundant supply, are the results obtained by M. Dusart from the employment of lacto-phosphate of lime by the mother. Given to the child it keeps up its appetite, favors nutrition, and thus preserves the infant from most of the ailments which are peculiar to the first period of life. In typhoid fever and its convalescent period, in albuminuria, phthisis, diphtheria, etc., the invigorating properties of lacto-phosphate of lime may be used with advantage.—*Gazette Médicale de Paris, March 11th, 1879.*

PIGMENTATION OF THE FACE IN ABDOMINAL TUBERCULOSIS AND OTHER CHRONIC ABDOMINAL AFFECTIONS.—Dr. N. Gueneau de Mussy (*Revue Médicale*, February, 1879) says that, twenty years ago, in a work on the cause and treatment of phthisis, he pointed out the coexistence of pigmentary patches on the face with abdominal tubercle. Since then, the two conditions have been so constantly associated, that he now regards the one as a sign of the other. Tubercular disease of the abdominal viscera is usually indicated by functional troubles which deprive the pigmentation of any diagnostic importance, but not always; and this pigmentation may become of value. It forms bronzed patches, which usually commence in the temporal fossa, and then spread over the forehead, where they may cover the greater part, or lose themselves in a diffused coloration, like that of mulattoes. Sometimes they invade other parts—the nose or the malar region; and they may even appear on other parts of the body, particularly the backs of the hands, and are sometimes so extensive as to constitute a species of Addison's disease. Pigmentation is found in other abdominal affections besides tuberculosis. Dr. Gueneau de Mussy has met with it in four cases of cirrhosis with ascites, and in a case of cancer of the stomach; it is present also in the well-known pigmentation of pregnant women, and may last several months after confinement should anything interfere with restoration to health. It is to be distinguished, however, though often coupled with it, from the greenish-yellow tint not uncommon in abdominal phthisis, and which appears to be associated with fatty degeneration of the liver; and if by its objective character this pigmentation put on the aspect of the melanoderma described by Addison—if in some cases, by its extent, it take this disease as its

model, and appears in, indeed, an early stage—it may well be asked if it have not some pathogenic connections with Addison's disease, if it do not own the same cause, acting with less energy. Dr. Gueneau de Mussy then passes in quick review the causes of Addison's disease, and concludes that all excess of pigment is developed under the same pathogenic condition: and this is a lesion or irritation of the nervous threads which form part of the suprarenal capsules, and form plexuses in their vicinity. All irritation or lesions of these nerves, in whatever part of the abdomen they commence, will end in the same result. Clinical observation is in accord with this induction. It has been seen that the most different affections situated in all parts of the abdomen are associated with the melanoderma of Addison's disease, or with the partial pigmentation now more particularly in question. And an irritation which is physiological and not habitual, such as that which results from enlargement and congestion of the uterus in gestation, produces the same effect, and explains the formation of the pigmentary mass which is characteristic of the pregnant state.—*Brit. Med. Four.*

NITRITE OF AMYL IN SUSPENDED ANIMATION.—The nitrite of amyl being a powerful agent in quickening the heart-beat, a few drops of this drug have a powerful influence in restoring the functions of the heart in cases of drowning, hanging, or fainting. It is suggested, therefore, that it should always be used whenever attempts are being made to restore to life an individual apparently dead, or when it is desirable to settle the question whether a person is really dead or not. The dreadful thought of being buried alive has haunted the human race since its earliest days, and the discovery of some means by which this risk could be, if not evaded, at least greatly diminished, would prove an ineffable boon to mankind. Dr. T. Lauder Brunton, to whom we have referred this suggestion, considers it to be a good one. He adds that in ascertaining death the nitrite of amyl might be used along with the cord-test, of tying a cord round the finger. If the circulation have entirely stopped, the part beyond the ligature never becomes any thicker; but if the circulation continue, however slowly, the finger-tip beyond the ligature will sooner or later begin to swell.—*Brit. Med. Four.*

CHLORAL AS AN ANTIDOTE.—Prof. Husemann, of Göttingen, has been engaged in a long series of observations on the antagonistic and antidotal actions of drugs, and some of his investigations which relate especially to chloral are described in a recent number of the *Archiv für Exper. Pathologie*. Of these the following is a summary. Chloral hydrate is known to act as an antidote to strychnine, lessening the spasm, and even preventing

death. It has a similar action in the case of the mixture of strychnine bases sold under the name of brucin, and also against the opium alkaloid thebaia, which simultaneously tetanizes and lessens sensibility. The spasms produced by chloride of ammonium diminish under the employment of non-fatal doses of chloral hydrate, and can indeed be completely stopped. Nevertheless death occurs, probably from the paralyzing effect of both substances on the respiratory centre. The antidotal effect of chloral on the action of the poisons which cause convulsions by their action on the brain is not the same for all these substances. The quantity of the poison which can be counteracted by the antidote appears to be considerably greater in the case of picrotoxin than in the case of codeia. Of the latter, indeed, the fatal dose, and even a quantity half as much greater, can be rendered harmless, but twice the fatal dose cannot be counteracted, and is still fatal. Calabarin is counteracted by chloral hydrate in about the same degree as codeia. The symptoms produced in rabbits by poisoning with baryta are not materially altered by the action of chloral, which does not appear to prolong life. So also with carbolic acid: the spasms produced by it are not arrested by chloral, and the minimum dose fatal to rabbits still produces death. The combination of a fatal dose of carbolic acid with a non-fatal dose of chloral hydrate causes in rabbits a remarkable fall of temperature, which is not produced by the action of these alone. As a rule, when chloral antagonizes the action of these cerebral poisons, the respiration sinks in frequency much more than in the case of the analogous action of chloral on the tetanizing poison. The depression of temperature caused by the chloral is almost independent of any peripheral loss of heat. The elevation of temperature due to division of the spinal cord is hindered by chloral hydrate. The depressing action of thebaia and codeia on the cerebrum, which is distinctly perceptible in many animals in addition to their action in causing spasm, is the chief effect recognizable in man. On the one hand, thebaia has a distinct action in lessening pain; and on the other, in human poisonings with this opium alkaloid, chloral hydrate is of little use, and in the case of poisoning by codeia, on account of the collapse which is produced, it is positively injurious.—*Lancet*.

THE ADIRONDACK REGION FOR PHTHISIS.—Dr. A. L. Loomis (*Med. Record*, April 26th, 1879) speaks very highly of the Adirondack region as a resort for those suffering from phthisis. This region is that portion of New York north of the Mohawk and west of the Champlain Valley, and extends about 150 miles northward and 100 miles westward. It is an undulating or hilly country, of porous soil, and covered with lakes and forests—

pine and hemlock, etc. It has an elevation from 1,500 feet to 2,000 feet above the level of the sea. As might be expected, in such a latitude the winters are very cold, but not changeable, and the summers short and not very hot—the thermometer seldom or never reaching 90° Fahr. The air is clear, bracing and loaded with soothing fragrance from the extensive balsamiferous forests. The doctor reports several very bad cases, some of which had become worse in Minnesota, at the South and at other favorite resorts, but received very favorable results from a summer sojourn in the Adirondacks. The best results were obtained by those who remained the longest—several years, both winter and summer. Some by camping out during the summer gained much in weight and appearance, and recovered almost entirely from cough, as well as night sweats and fever, but by returning to the City of New York soon again began to manifest their former unfavorable symptoms. A return to their forest homes in the Adirondacks in most cases was followed by the most gratifying results. It would seem from Dr. Loomis' report, that our Eastern brethren, like ordinary mortals, have been searching this earth from shore to shore for a region where the dreaded disease, phthisis, may be controlled, while the enchanted land, with its towering pines, has laid for ages beneath their gaze unobserved.—*Mich. Med. News*.

THE TIME FOR BEGINNING THE CONSTITUTIONAL TREATMENT OF SYPHILIS.—(Wiener *Med. Wochenschrift*, No. 10, 1879,—*Beliner Klin. Wochenschrift*, March 24, 1878,—*Cincinnati Lancet and Clinic*, April 25, 1879). It is Von Sigmond's opinion, the result of extensive experience, that the secondary period of the disease is the proper time to commence general medication; even at this stage he saw no necessity for haste, unless several systems or organs were affected, or the disease was of a very severe type, or in case the general physical condition of the patient appeared to suffer. When of the lighter grade and confined to single organs, ordinary local treatment will usually suffice, even in the secondary stage. Abundant experience had satisfied him that anti-syphilitic general treatment during the primary stage exerted no influence upon its course, except in some cases the debilitating course of treatment postponed a cure. Of those treated simply locally at the outset, a large proportion—almost forty per cent. of all infected—presented very slight secondary symptoms, sometimes scarcely noticeable by the patients themselves. In the milder class of these secondary manifestations, complete and permanent cure very often followed simple local means. On the other hand, experience has also shown that a general treatment, begun late in the secondary period, is followed by more rapid and permanent results than if undertaken at an earlier

date. In his concluding remarks he insists upon the importance in each stage of the disease, of careful attention to the hygienic and dietetic conditions and of prompt treatment of all complicating constitutional diseases.

SUBSTITUTE FOR COD-LIVER OIL.—Dr. Emmet, in his work on gynæcology, gives the following directions for preparing pork for invalids: "I direct a thick portion of a rib piece, free from lean, to be selected and allowed to remain in soak for thirty-six hours before being boiled, the water being frequently changed to get rid of the salt. It should be boiled slowly, and thoroughly cooked, and while boiling, the water must be changed several times by pouring it off, and fresh water nearly boiling substituted. It is to be eaten cold in the form of a sandwich made from stale bread, and both should be cut as thin as possible. It is very nutritious, but it should only be given in small quantities until a taste for it has been acquired. It is the most concentrated form in which food can be taken in the same bulk, and I have frequently seen it retained when the stomach was so irritable that other substances would be rejected. For this condition of the stomach it may be rubbed up thoroughly in a porcelain mortar and then given in minute quantities at a time."

TREATMENT OF WHOOPING-COUGH.—Pertussis is one of the common epidemic diseases that rarely occurs twice in the same person. It is a specific catarrh and should be treated with just as much promptness and care as any other form of bronchitis. That the disease runs a definite course, with a natural tendency to recover, is not questioned. That most all acute inflammations pass through equally well marked stages no one doubts. That if it is rational to treat pneumonia, the same reasons demand that whooping-cough shall be treated.

The first stage is that of congestion with dry, irritative cough; the second stage is that of mucous secretion, in abnormal quantities, and no acinous secretion (no chloride of sodium to liquify the mucus), attended with prolonged efforts to expectorate.

In the first stage a purgative dose of calomel, followed by a full dose of quinine—enough to produce decided constitutional effect. Say ten grains to a child between two and six years of age. The local use of bromide of potassium, ten grains to an ounce of water, to be used in a spray for inhalation every two hours. This plan of treatment, with slight modifications to suit individual cases and complications, has proven as nearly specific as could be desired. A full report of the results of this general plan of treating pertussis will, at an early day, appear in the columns of the *Herald*. Enough has been done to demonstrate that the

disease is a specific catarrh, and that it may be successfully treated; not by any abortive measures, but by such means as naturally tend to hasten the various stages to a favorable termination, without the danger of capillary bronchitis and pneumonia. —*Med. Herald*.

NECROSIS WITHOUT SUPPURATION.—William Colles, M.D., in the *Dublin Journal of Medical Sciences* for December, 1878, reports the following case:

"F., aged 15, healthy, was thrown from a carriage and received some bruises on the face; also there was a slight transverse wound, about one-fourth of an inch, at the ulnar side of the left wrist close to the joint. Through this opening projected a small piece of very rough bone, which was considered to be the lower end of the ulna broken off and projecting. It could not be restored or retained in position. Two days later she was put under the influence of chloroform, but it was still found impossible to restore the natural form of the limb. It was therefore determined to remove the projecting piece. With this view the piece was caught in a forceps, and a director passed behind it. It was found that the latter instrument could be easily passed for a considerable distance in all directions without obstruction from ligamentous or other attachments. On bending the hand backwards, and pressing the director inwards, there slipped out a portion of bone two inches long. On examining the forearm, the bones seemed quite naturally in their position, but perhaps slightly larger than those of the opposite limb. On examining the bone extruded, it was much smaller than would be expected in a person of her age; it was quite devoid of periosteum; no cartilage or epiphysary end, but a small rough deposit of new bone; the upper end irregular, jagged, but in no part did it present any appearance of its having been acted on by living parts; and on section—which was difficult, from the dryness and friability of the bone—the medullary cavity was the same as in ordinary section of bones.

"On further inquiry it was found that about eight or ten years ago the patient fell and received what was called a sallyswitch fracture of both bones; this was treated by splints and rest; she recovered with perfect use of the limb, but there was a slight thickening of the bone.

"That this was a case of necrosis there can be no doubt; and if it was the result of injury, it must have been of only two days' duration, which is scarcely possible, for the bone to die, to lose its periosteum, cartilage, and epiphysary end, and for a new case to be formed around the dead bone. Hence it was more probably the result of the fracture received so many years ago."

OVARIOTOMY UNDER ADVERSE CIRCUMSTANCES.

—The *Louisville Med. News* says:—Ovariectomy has been reduced to such an exact science, and cases have recovered under circumstances so adverse, that reports of special cases have given way to statistical remarks upon lines of cure. In the *British Medical Journal* of May 24th, however, there is the report of a special case, which has no fellow that we know of in history, in which is described a successful ovariectomy by Mr. Spencer Wells, in which the patient was suffering at the time from suppurative peritonitis and pyæmic fever. The operation was rendered necessary by the bursting of a cyst into the peritoneal cavity.

CURE OF THE OPIUM HABIT.—The *Med. and Surg. Reporter* says:—Dr. Osgood, of the Missionary Hospital at Foochow, has treated successfully several hundred cases of the opium habit by the following plan: 1. The total and absolute discontinuance of the opium from the beginning of treatment. 2. A trusty attendant to be with the patient day and night for the first three days. 3. Chloral hydrate for the first three nights, if required. 4. Good food, milk, raw eggs, brandy (in some cases), and chicken broth. (The above is taken in small quantities and frequently). 5. In diarrhoea, give two-drachm doses of a mixture of equal parts of tincture of catechu and tincture of ginger.

TREATMENT OF SCARLET FEVER.—The late Prof. George T. Elliot, of New York, in a lecture on this disease, gave the following method of treatment: To bring the eruption out, if it has not already presented itself, order hot baths and blankets. Give nothing to eat at first in the eruptive state, and only the simplest nourishment the first day. Patients experience great relief from baths, and the application of cold cream, or mutton tallow over the whole body. Visit the patient twice a day. By pouring a pitcherful of cold water over the back of the neck, especially when the glands are enlarged, great comfort is experienced. As a gargle make use of chlorate of potash or soda. Pieces of ice are good in the mouth. Sprays thrown in with Richardson's instrument, of lime water, solutions of alum and sulphate of zinc, are beneficial. As a palliative to the throat, the vapor from slacked lime can be recommended. Strong beef tea, with opium, may be thrown up the bowel. Begin to feed the patient from the second day of the eruption with animal essences. If the tonsils are enlarged and the pharynx exhibits much redness, with diphtheritic exudation, the physician has a right to say that things look bad. If the throat symptoms do not mitigate on the fourth or fifth day, the voice being affected, then one feels that there is a good deal of danger. When the kidneys show hyperæmia, desquamation, or transitory albuminuria, then there is a twofold danger. Al-

ways examine the urine when the patient has kidney disease; the treatment should be directed to the skin and bowels; when the latter are loaded and constipated, give powerful saline cathartics.

To convalescing patients the use of iron is beneficial. The bisulphites have been recommended, but from experience they can not be advocated. Belladonna is not always a prophylactic, although, on account of its innocence, and a feeling of satisfaction to the practitioner and family, it is well to administer it.—*New York Medical Record*.

PROPHYLACTIC TREATMENT OF POST PARTUM HEMORRHAGE.—Dr. John Kent Spender discusses this subject in a recent number of the *London Lancet*. He has examined all the literature of obstetric medicine at his disposal, including the first sixteen volumes of the *Obstetrical Transactions*, but finds no paper on the prophylaxis of flooding which treats of the treatment at the proper period of gestation. All discussion dwells on what should be done *during the progress of labor*, and Dr. Spender asks: "Is this then the whole problem? Is it not a mere fragment of a very wide problem, whose area is co-extensive with the whole period of gestation and even beyond? If we expect a child-bearing patient to lose an unnatural quantity of blood during the third stage of her next labor, certainly it is a most narrow view to imagine that we are doing our whole duty to that patient in merely 'anticipating' hemorrhage when the early stages of labor are going on." "It is easy to lose ourselves in a dark thicket of words about 'debility,' 'want of tone,' and the like; but this is not science, nor can scientific knowledge be gained by any such means. Divesting ourselves of all obstetric specialty, we shall best approach the subject as the pure physician; and perhaps we shall find that a bleeding womb is only one weak member among many weak members, the vital resistance of which is weakened by deficient hæmotosis and imperfect formative power. The history of gestation may give rise to many medical accidents; the physiological experiment of pregnancy (as Dr. Barnes calls it) searches the body in every part, and tells in plain terms when blood is poor, nerves and nerve-centres are irritable, and excretory glands are blocked or damaged. But at the end of nine months there is one organ whose strength will be specially tested, and the enormous strain to which it is then submitted will prove or disprove its textural soundness, the integrity of its muscular fibres, and the elasticity of its blood vessels. And if this healthy balance be seriously disturbed, can we wonder at the phenomenon of post-partum hemorrhage?"—Dr. Spender believes, in the first place, that many cases of post-partum hemorrhage arise from an ill-nourished uterus. In many cases the uterus is starved because the body is; and nerves and muscles and bones waste because of

the long inability to take food in proper quantity and quality. The uterus is a bag of muscle like the heart, and is liable to some of the frailties and accidents which beset all organs constructed as receptive and expulsive cavities. If mere weakness can disturb the hythmic action of the heart so as to produce palpitations and faintness, it is only according to analogy that a weak uterus should abort, or be flexed, or be unable to contract efficiently when the mature ovum has been expelled. Although no direct observations have been made, Dr. Spender thinks that menorrhagia in early life is often a prelude to post-partum hemorrhage afterwards.

To strengthen the muscular fibre of the uterus he advises that a relatively large quantity of meat (the special food of all muscular organs) should be eaten during gestation. The "positional treatment" should also be resorted to. The patient should lie down for three or four hours daily on a couch, the foot of which is raised a few inches, so as to lighten the arterial column flowing to the uterus, and proportionately to favor the return of venous blood from it. Static pressure being thus relieved, the uterine sinuses are not so liable to be distended, and passive congestion is retarded. Daily muscular exercise in the open air is also of vital consequence in helping the metamorphosis of tissue and the processes of excretion. As a special restorative medicine he has greatest confidence in the muriated tincture of iron, to be taken especially during the latter months of pregnancy. Where a tendency to post-partum hemorrhage has appeared, too frequent pregnancies must be guarded against in order to allow the uterus time to recuperate. Dr. Spender does not think that chloroform predisposes to post-partum hemorrhage. He regards the obstetric belt worn during the last two or three months of pregnancy as valuable in promoting tonicity of the distended uterus.—*Mich. Med. News.*

TWENTY-FIVE CASES OF SPLENOTOMY.—[We are indebted to Professor A. BARKAN, M.D., for the following translation from a paper on Laparo-splenotomy, recently published by Professor Czerny.—Ed. P. M. & C. JOURNAL.]

Professor Czerny, who succeeded the late Simon in the Chair of Surgery at the University of Heidelberg, and may be considered as one of the foremost of young German surgeons, has recently published a monograph on laparo-splenotomy, which contains the history of two cases operated on by himself, and some interesting remarks regarding the operation itself. Of twenty-five cases on record, six recovered (Zaccarelli, Ferrerius, Pean (2), Martin, Czerny). Speaking of the condition of the patients, whose state of health was shown for a long period after the successfully performed operations, Czerny remarks: "These cases again prove the well-known fact that man is able to live

without a spleen, without his functions undergoing an essential disturbance. The changes in the constitution of the blood are of such trifling nature, and soon pass away so completely, that they may be considered simply as caused by the operative proceeding. The passing swelling of the lymph glands does not seem either to be a constant sequel of excision of the spleen, nor is there a constant anomaly to be found as regards the digestion of the patients. Neither bread and butter nor potatoes agree with my patient, whilst to the second patient of Pean, meat is distasteful. His first patient, as well as Marin's case had normal digestion. If, then, the spleen possesses the great significance in the Pancreatic digestion, and Schiff supposes, it is replaced through supplemental organs, in a way similar to that in which the excluded stomachic digestion is supplanted in the living dog. A striking feature is the greatly excited nervous condition of these patients. As to the benefit conferred by the operation, there seems to be no doubt that in these four cases the trouble and dangers caused by the moveable or enlarged and painful spleen, have been lastingly removed.—*Pacific Med. & Surg. Journal.*

TREATMENT OF SEVERE BED-SORES.—Dr. Dyce Duckworth (*Archiv. Dermatology*) communicated to the Am. Derm. Ass. meeting of 1877, a short paper on this subject. He recommends that, in addition to the use of the water-bed, the patient should lie with the buttocks and sacrum constantly upon poultices. These should be made of linseed, and if there be much discharge or fœtor, the cataplasma carbonis should be used. They should be made of pure linseed and frequently changed. They must be large and secured in position by a binding sheet secured over the abdomen by safety-pins. The balsam of Peru should be added if there is deep excavation and sloughing.—*Am. Med. Bi-Weekly*

A CHEAP DISINFECTANT AND DEODORIZER.—Dissolve a drachm of lead nitrate in a pailful, and a drachm of common salt in a jugful of soft water and mix the two solutions. Soft water is essential, on account of preventing the formation of an insoluble carbonate of lime and lead. Dip rags into the solution, and hang them in the offensive room, or pour some of the mixture upon excrements, or down the privies or sinks. This is of ordinary strength, but the solution may be made stronger if desired. If carb. lead and lime form, pour off the clear liquid and use none of the sediment.

The Russian plague has been investigated by Prof. Hirsh. He says that the epidemic at Wetlyanka was really one of true plague. The mortality in Wetlyanka was about 80 per cent. It was suspected that the disease originated with the war in Asia.

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TORONTO, AUGUST 1, 1879.

MEDICAL AND LEGAL ASPECTS OF DIPSOMANIA.

The *Practitioner* for June, gives an able article on the above subject, by J. Kingston Barton, F.R.C.S., which, did our space permit, we should much desire to place before our readers, *in extenso*. We must, however, confine ourselves to a few important abstracts which appear to us worthy of the prudent consideration, alike of the medical profession, and of our legislative and administrative authorities.

On the *Etiology* of Dipsomania, the writer lays down the following definitive premises:

"Hereditary taint is, no doubt, the most important element. There are, however, two important kinds of hereditary taint:

1st. That dipsomania is a neurosis, and only a variety of insanity, other members of the same family being either insane, epileptic, eccentric, or hysterical; or some of the parents or grandparents being afflicted with one or other of the above neurotic afflictions.

2nd. That dipsomania as a neurosis, only arises from an acquired habit of the parent, that is to say, a man drinks hard either because he is fond of luxurious living, or from mere habit with his associates, and the result of this drinking is that his children have a strong tendency to become dipsomaniacs."

"Injuries to the head occasionally produce periodic dipsomania. It is often extremely difficult to say which is the real cause, as they re-act so much on one another. But one thing is evident, dipsomania is rare amongst the lower classes; it is a disease found almost entirely amongst the upper classes.

"Those who most often become dipsomaniacs,

either are themselves rich, or are thrown amongst those who have money, and live luxuriously. The army, and *club life*, are most dangerous schools for any one with a hereditary disposition to dipsomania, for liquor is the mainstay of idle men. The number of idlers always present at clubs speaks for itself."

The writer then draws comparison between the tendency to drink in the army and navy, and asserts that in the former, dipsomania is met with far more frequently than in the latter; and he assigns as the reason of this difference, indulgence in the army in champagne, whilst in the navy, wine drinking is less common; but he gives to the navy a larger credit for drunkenness, which he regards as quite distinct from dipsomania. The following statement might be regarded as almost an unquestionable moral axiom, and perhaps its actuality is but too certainly illustrated in our own profession:

"Idleness is the most important cause for inducing drinking habits, and consequently that is why members of the upper classes are frequently the subjects of dipsomania."

That idleness is the dire misfortune of a multitude of our young country, and too many city practitioners, is a fact painfully above controversy, and we cannot imagine any position in life more pitiable than that of a newly fledged physician, whose realm of literary or professional culture has been circumscribed by the bare attainment of so much proficiency as may have enabled him to screw himself through a final touch-and-go *pass* examination. Such a mental starveling has no resources within himself, on which he may fall for intellectual sustentation, in his clientless probation, and heaven knows, his surroundings, in some semi-barbarous hamlet, or near some cross-road tavern, are but too little calculated to inspire him with professional ambition, or to elevate his conceptions of self respect. What wonder then, that in too many instances, he is to be found seeking refuge from his mental misery, or perhaps his fiscal perplexities, in the bar-room, on the race-course, or, worst and last of all, at the gambling table.

Dr. Barton designates one of the forms of dipsomania as the *periodic*. In this form, the victim may put over four, or even eight months, in total abstinence from alcoholic liquor, "but the first taste of liquor after that abstinence would bring on an attack."

Nothing can be more true than this statement. We have known cases in which not the *taste* only, but the mere smell of alcoholic liquor has, after months,—nay, in one case, after over a year of rigid abstinence,—provoked indomitable relapse. We believe, that even in Canada, a few very *illustrious* examples of this fearful mania, (for a real mania it is), might be adduced.

Among Dr. Barton's observations relative to the treatment of dipsomaniacs, the following pungent enunciation of his estimation of the legislating capacity of lawyers, is as refreshing as it is pertinent: "As long as lawyers have the making of laws for the treatment of insanity, so long shall our laws be inadequate." And yet, what law has ever yet reached enactment in relation to insanity, or to any other moral evil, or physical affliction, which has escaped the tinkering interferences of these quacks? The sublime diagnostic autocracy displayed by this class, whether at the bar in prosecution or defence, or on the bench in sage exposition of a somatic malady, of whose protean character they have as little practical knowledge as a clod-hopper has of Newton's theory of optics, is one of the richest treats which an experienced alienist need desire. In no other department of mundane affairs can so convincing a proof be afforded of the fact, that the highest pretension to consummate knowledge of a subject, must be based on utter ignorance of all its actual phenomena; and it will be strange indeed, if an expert witness will escape the contumelious insinuation, that his long intimacy with mental dethronement has eventuated in his own mental eclipse. It might, to a sane man, appear rather absurd to be told that an anatomist, who has made the study and dissection of the body a life-work, or the physiologist, who has spent long years in experimentation of its functions, must know less of these sciences than the man who has never entered the dissecting room, or the laboratory; yet it is not a whit more declarative of stolid ignorance, than are the jeers and snobbish sneers to which an intelligent and honest medical witness may expect to be subjected in the box, or within its precincts.

But we have been tempted into a digression. In truth, to be just to Dr. Barton, his entire essay should be reproduced, which is outside the capacity of our pages. With one most significant practical passage, we must close our citations, and it is as follows:—

"If a man is found to be a confirmed dipsomaniac, and is constantly getting ill, and getting into all kinds of scrapes, the worst thing his friends can do, is to be constantly paying his debts and setting him straight again. It only encourages him to continue his practices, feeling that he will always be extricated by some one."

Dr. B's matured conviction is that this class of inebriates are incapable of self-control, and of self-reclamation, and that no maudlin, sentimental tenderness as to their personal liberty should deter communities or legislatures from dealing with them as their own best interests, and those of their dependent relatives, as well as the public weal, demand. We are entirely in accord with Dr. B. in this conviction, and we venture to say that it would be endorsed by the great majority of the medical profession.

PORNOGRAFIA DE BUENOS AYRES.

Under the above heading (which our Greek reading subscribers will readily interpret), Dr. Dupont has been contributing to the *Revista Medico-Quirurgica* of Buenos Ayres, a series of very instructive articles, with the view of demonstrating "the necessity of a Dispensary of Health, and a bureau of public morals (costumbres) for the regulation and repression of prostitution."

Dr. Dupont's arguments in this relation are chiefly drawn from official statements of similar establishments in Europe; and as we are not very clear in our impressions as to the actual *general* efficiency of the system, we prefer, for the present, to leave this part of his subject under deliberation.

We believe, however, that a perusal of some of the statistics cited by Dr. D., from a thesis by Dr. Fidanza on the prevalence of venereal diseases in Buenos Ayres, may be interesting to our readers, the majority of whom we are happy to think, have had but comparatively meagre opportunities of practical acquaintance with the ravages of this class of diseases.

In the general hospital of San Roque, from 1861 to 1870, inclusive (ten years), the admissions were, of men 29,684, and of women 7,704. Of the former, 6,497, or nearly 22 per cent., were cases of venereal disease, and of the latter, 362 were of the same form, or only 5 per cent.

In the 5 years from 1872 to 1877, inclusive, the

total admissions in three hospitals (San Roque, the French hospital and the English hospital) were 28,486 males and females (undistinguished). Of these 4,362 were venereal cases, or in the aggregate of male and female cases, 15.3³/₁₀ per cent.

Dr. Dupont, corroborated by Dr. Fidanza, estimates the number of venereal cases submitted to hospital treatment, as only equal to one-tenth of the whole number occurring in the city; and if this estimate be correct (and certainly Drs. D. and F. should be well able to form it), there must have been no less than 112,210 cases in the 15 years, 1861 to 1877 inclusive, or an average of 7,480 annually. This figure, for a city of some 300,000 men, women and children, is certainly rather threatening, and should be very admonitory to visitors. We have lately been informed by the highest episcopal authority of the church which represents over 90 per cent. of the population of Buenos Ayres, that the confessional is the surest safeguard of public and private morality. If this be true, the duty of confession must either be very much neglected in Buenos Ayres and throughout South America, (for venereal disease abounds in every portion of it), or its moral efficiency must be very slender. This, however, is not a question for medical jurisdiction, though it is one for serious consideration.

The deaths from constitutional syphilis, in Buenos Ayres, in hospital, in the 5 years, 1869-1873, were 301, or 60 per annum. This we venture to say is a very low estimate as regards the entire infected population. Dr. Fidanza tells us that among the lowest classes only a small proportion are treated by the regular medical profession. "Innumerable," he says, "are those among us who regard the disease with indifference the most criminal, that is, in the lowest classes, and who prefer the aid of ignorant charlatans to that of regular practitioners." We can easily comprehend the consequences of this indifference.

That only a fractional proportion of the number of female cases, as compared with those of males, comes under medical treatment, no one can doubt; and that the ravages of the neglected malady must be terrible among the women, is a fact duly established, though but in a minor degree, by the following figures. Of 6,497 male cases treated in San Roque, in 10 years, only 26 resulted in death, or about 4 per 1000; but of 362 female cases in

the same period, 36 ended fatally, or nearly 100 per 1000. This shows that women enter the hospital only after the disease has become far advanced. "This," as Dr. F. justly says, "indicates that during a long time these creatures have been affected, and may during the course of the disease have transmitted it to an immense number of individuals."

Jacob Faithful said very truly that "familiarity breeds contempt." Familiarity with venereal disease has, no doubt, done effectually its work of moral and physical degradation in the metropolis of the Argentine Republic. Dr. Dupont estimates the annual number of cases of syphilis in Buenos Ayres as at least 10,000.

The like proportion for the city of Toronto would give, say, 2,500 cases. We dare not venture to say how far this calculation exceeds the actual fact, but we would fondly hope our city, whether through the efficacy of a close and conscientious attention to confessional duty, or any and all other auxiliaries of sound morality, will long stand at a very remote distance in the statistics of venereal diseases, from the most important city of all the quondam provinces of His most Christian Majesty of orthodox Spain.

THE TORONTO SCHOOL "ORGAN" AND THE ONTARIO MEDICAL COUNCIL.

As was to have been expected the Toronto School "organ" in its July issue comes out in opposition to the proposed increase of territorial representatives, "believing that the Council is already too large and unwieldy." If it is too large and unwieldy now, what must it have been when the eclectic members were yet on the board? The real cause of this opposition however is not difficult to comprehend. The territorial members at the last meeting showed more than the usual amount of independence, and refused to be led by the nose at the instance of a few manipulators. The council has therefore suddenly become "unwieldy" and its proceedings have come in for an inordinate amount of contemptuous criticism, in the style peculiar to the "organ." So long as the council was obsequious and submitted to dictation, all was right, no praise too great; but the moment that body asserts itself, it becomes "unwieldy," and the dictionary of vituperation is exhausted; every

word indicative of contempt which can be thought of is used. It is now characterized by "puerility" "incapacity" and unseemly wrangling." Its proceedings are "simply disgusting;" "the log-rolling," "wire-pulling," "mutual recriminations incessantly indulged in," "rampant and running riot" fill one with "ineffable disgust." Even Dr. Daniel Clark, one of the organ's "model men" comes in for a share of abuse for his independence the organ grieving much that "our greatest are so small."

Of course the profession of Ontario can easily see where the opposition to increased territorial representation is coming from, and can give it whatever consideration its importance may seem to demand. We are quite willing to accord to the schools their just share in the management of affairs, but we still maintain that the interests of the profession are paramount, and the number and influence of the territorial members should be increased.

With reference to the treasurer Dr. Aikins, we totally deny that there was any attempt made by any member of the council to "asperse that gentleman's character," all who spoke, bore ample testimony to the faithfulness with which he had discharged his duties as treasurer. The objections which were urged against "that gentleman's" holding the office, were such as would be taken against any other school-man occupying the position, and one which the "organ" would very soon raise a cry about, if it were held by a member of the faculty of any other school. Although Dr. Berryman's motion which affirmed that "no permanent officer of the council should be connected with any of the schools," was defeated by a small majority, the principle is a sound one, and sooner or later must and will prevail.

THE AMERICAN ACADEMY OF MEDICINE.—This association of physicians was organized September, 1876, at Philadelphia, during the sessions of the International Medical Congress. Dr. Traill Green, LL.D., of Easton, Pa., was elected its first President. Frank H. Hamilton, M.D., LL.D., of New York, and Lewis H. Steiner, A.M., M.D., of Frederick, Md., were respectively chosen as Presidents at the meetings in 1877 and '78. At these meetings the organization was more thoroughly perfected, and numerous accessions were made to the membership.

The objects of the Academy are thus broadly stated in its Constitution :—*First.* To bring those who are alumni of collegiate, scientific, and medical schools into closer relations with each other. *Seco: d.* To encourage young men to pursue regular courses of study in classical or scientific institutions before entering upon the study of medicine. *Third.* To extend the bounds of medical science, to elevate the profession, to relieve human suffering, and to prevent disease.

The Fellows of the Academy must be Alumni of respectable collegiate institutions, who have received therefrom :—

1. The degree of Bachelor of Arts, after a systematic course of study, preparatory and collegiate ;
2. The degree of Master of Arts in accordance with the usage of these institutions ;
3. The degree of Doctor of Medicine, after a regular course of study, not less than three years, under the direction and instruction of preceptors and professors. They must have also had an experience of three years in the practice of medicine.

Candidates for fellowship must be recommended by at least one Fellow, and be approved by a majority of the Council, after which the consent, by ballot, of two-thirds of the Fellows present will secure their election. The initiation fee is \$5.00, to be paid before initiation and registration. Blank forms of application for fellowship can be obtained from the Secretary, R. J. Dunglison, M.D., Philadelphia. The annual meeting for 1879 will be held September 16, in New York.

ANOTHER "SKILFUL OPERATION."—A report of another "skilful operation" comes to us from the eastern part of the Province, cut from the columns of the *Perth Expositor* of the 12th of June. The account of the operation (ovariotomy) is given in the form of a letter, and was certainly written by a medical man—no doubt some ill-advised friend of the operator. The evil of newspaper advertising lies chiefly in the fact that an account of these operations is published solely to magnify the skill of the particular physician who undertakes them, rather than to show to the public the benefits that may be derived from surgical procedures. There could be no objection to a statement of the operation and its results, without bringing into special prominence the names of the operators. This would fully meet the requirements of those who desire to instruct the public in these matters.

CANADA MEDICAL ASSOCIATION.—The Twelfth Annual Meeting of the Canada Medical Association will be held in London, Ont., commencing on Wednesday, the 10th of September. Those who propose to present papers will confer a favor on the Committee of Arrangements by kindly letting them know the title thereof at least ten days before the meeting. Arrangements will be made with the different Railroad and Steamboat Companies for the usual reduction in the fare of members, certificates for which can be obtained from the Local Secretaries, Drs. L. Allison, St. John, N.B.; Lawson, Halifax, N.S.; Burgess, London, Ont.; and Osler, Montreal; and from the General Secretary, A. H. David, M.D., Montreal. The meeting has been postponed from the 3rd to the 10th of Sept., owing to the opening of the Exhibition, and the Governor-General's intended visit to Toronto and the western cities early in September.

CÆSARIAN SECTION WITH REMOVAL OF THE UTERUS AND OVARIES.—This operation which is said to have originated in America has lately been revived in Vienna. The operation has been performed in all 24 times, and 9 times in Vienna alone. Prof. Carl Braun has performed this operation five times. Two of the cases were successful and two unsuccessful; in the fifth the result has not yet been made known, the operation having been performed on the 20th of June last. The operation of Cæsarion section is first performed, after which the uterus and ovaries are removed in the usual way. The advantages claimed for this operation are, that the bleeding is entirely controlled after emptying the uterus, the danger of peritonitis is less than when uterine sutures are used, and the danger of secondary hemorrhage so frequent when uterine sutures were not used, is lessened. Lastly the woman can never again become pregnant.

EPITHELIOMA OF THE CERVIX UTERI.—Dr. Sims is opposed to the removal of the cervix by the ecraseur or electro-cautery, in the treatment of epithelioma of the cervix. He prefers ordinary excision by the knife and scissors, removing every portion and afterwards applying caustics to produce sloughing of the surface.

CORONERS.—The following gentlemen have been appointed coroners for their respective coun-

ties:—A. McKay, M.D., of Underwood, for the County of Bruce, Ont.; J. L. Brown, M.D., of Plattsville for the County of Oxford, Ont.; L. N. Bourque, M.D., for the County of Kent, N.B.; R. A. Ford, M.D., and G. H. Johnston, M.D., for the County of Kings, N.B.

PRACTICE FOR SALE.—We beg to draw attention to an advertisement in this issue of a practice for sale in Montreal. An excellent opportunity here offers, with several transferable appointments.

INTERNATIONAL MEDICAL CONGRESS.—The sixth meeting of the International Congress will be held at Amsterdam, commencing on the 7th of September, '79, under the presidency of Prof. Donders.

A WITTY Englishman replies to Mr. Mallock's enquiry, "Is life worth living?" that it depends upon the liver.

THERE is said to be a good opening for a physician in Udora, Ont.

DR. TILBURY FOX, the distinguished dermatologist, died a few weeks since, in Paris.

APPOINTMENTS.—Drs. Canniff and Thorburn have been appointed on the acting staff of the Toronto General Hospital, and Drs. Russell and U. Ogden on the consulting staff.

DR. W. B. BURLAND has been appointed surgeon of the 5th Royal Fusileers, Montreal, *vice* Dr. Drake, resigned.

DR. REED has been appointed apothecary to the Montreal General Hospital.

DR. B. TRAVERS of St. John, N.B., has been appointed a member of the senate of the University of New Brunswick.

Reports of Societies.

THE HAMILTON MEDICO-CHIRURGICAL SOCIETY.

The regular meeting of the above Society was held on the 2nd inst., at the Royal Hotel, the Vice-president Dr. Malloch in the chair. There was a good attendance of members present. A resolution of condolence was passed expressing regret at the death of Dr. J. B. Laing an old member of the Society.

Dr. Mullin presented a patient who had fallen from a scaffold 6 weeks previously and sustained a compound fracture of the left tibia, opening into the ankle joint, also a Colles' fracture of left forearm. The bones were found to be firmly united, and the wounds healed except to a small extent superficially. The fracture was treated under Lister's spray. The temperature never rose above 100° F., and without pain or swelling in the affected limbs. The result was considered by all eminently satisfactory. Dr. Malloch presented a patient on whom he had performed Symes' operation nine months previously. The patient had a very useful stump. Dr. Ryall presented the subject of vomiting in pregnancy and the generally unsatisfactory result of treatment, and failure of all remedies in some cases. After the members present had generally commented on the subject, Dr. Mills presented a pathological specimen of fatty degeneration of and liver and kidney; an enlarged bronchial gland, also a portion of a nutmeg liver where the interlobular veins were very much enlarged; also a portion of an ovarian cyst.

A. WOLVERTON, M.D., Sec.

NEWCASTLE AND TRENT MEDICAL ASSOCIATION.

The second meeting of the above Association was held at Cobourg, on the 4th ult., Dr. Herriman of Port Hope, President, in the chair.

After the reading of the minutes of the former meeting, the Committee appointed to draft a constitution and by-laws submitted their report, which on motion was adopted.

After the usual routine business had been disposed of, Dr. Hamilton, of Port Hope, exhibited a specimen of *Tricocephalus Dispar* and made some appropriate remarks thereon.

Dr. Boucher of Peterboro described the process of operating for the removal of cartilage from the interior of the knee joint, and exhibited a cartilage he had abstracted.

Dr. Frazer, of Peterboro, then described a case of malignant tumour of the frænum linguæ which he removed. This case provoked some discussion on the subject of malignant diseases in general. Cases of epithelial cancer, epulis, syphilitic ulceration were reported, and their distinguishing characteristics and appropriate treatment discussed.

Dr. Ruttan, of Napanee, then gave the history of twin sisters who were both affected with multi-

locular ovarian disease, one of whom died, while the other recovered by spontaneous cure.

Dr. Waters promised to read a paper on Fracture of the Astragalus at the next meeting, and illustrate by cases; other gentlemen also promised to bring cases or pathological specimens. It was also determined to submit a tariff of charges for the consideration of next meeting.

Dr. Hamilton gave notice that he would move at next meeting to allow gentlemen outside of the profession to become honorary members.

The Association decided to meet three times a year, on the first Wednesday in the months of February, June and October.

The following are the members of the Executive Committee, Drs. Waters, Hamilton and Thornburn.

The next meeting will be held at Colborne on the first Wednesday in October.

BRANT COUNTY MEDICAL ASSOCIATION.

The above Association, convened at Paris, Ont., on Tuesday, June 3rd. Members present were Drs. Burt, Dickson, Griffin, Henwood, Sinclair, Clarke and Harris; and Drs. Turquand and McKay of Woodstock, as visitors. A committee was appointed to consider and report at the next meeting on a Code of Medical Ethics for this Association. Notes on different cases were given by Drs. Griffin, Burt and Clark. One of the most interesting was a specimen of diseased larynx, which was shown by Dr. Griffin. The next meeting of the Society will be held at Brantford, on the first Tuesday in September.

Books and Pamphlets.

A PRACTICAL MANUAL OF THE DISEASES OF CHILDREN, WITH A FORMULARY.—By EDWARD ELLIS, M.D. Third Edition. New York: William Wood & Co. Toronto: Willing & Williamson.

Every one engaged in the practice of medicine soon finds out the difficulty of arriving at a correct diagnosis in examining children in early life. The organs of relation being then but very imperfectly developed, the medical attendant is in such cases entirely destitute of that valuable information which he might readily obtain from an adult patient. Another source of difficulty is, that in consequence of the excessive sensibility of the infant, the sympathetic phenomena are very marked, and oftentimes become confounded with the idiopathic

symptoms of the disease. In English, many valuable works on the diseases of children are in print, such as those of Underwood, Hamilton, Dewes, Burns, Meigs, Churchill, Ryan, Sir W. Jenner, Stewart, Barlow, Eustace Smith and others, the names of the writers not at the moment occurring to us. In the first rank among the French writers on the subject, are Capuron, Becquerel, Billard, Bouchut. Chief among the German writers, are Joerg and Vogel. They have all followed more or less different arrangements; for all practical purposes, the system pursued by Dr. Ellis, the writer of the work under review, is, we conceive, as little open to objection as any, although less comprehensive and minute than Billard. Dr. Ellis divides his work into ten chapters. 1st. General observations on management and diet. 2nd. General diseases. 3rd. Skin diseases. 4th. Congenital affections. 5th. Fevers. 6th. Diseases of brain and nervous system. 7th. Diseases of air passages and thoracic organs. 8th. Diseases of food passages. 9th. Therapeutical hints and formulary. 10th. Dietary. The fourth chapter, on congenital affections, might certainly have included a far larger number than we find adverted to, the only abnormal conditions touched on being asphyxia neonatorum, diseases of navel, sclerema or induration of cellular tissues, and ophthalmia neonatorum; numerous other congenital states not being alluded to, such as congenital occlusion of the eyes, ears, nose, lips, arms, vulva, vagina, prepuce and urethra, or of union of certain organs—tongue to gums or lips, tongue-tie, etc.; disunion of organs, such as hare-lip, cleft palate, epispadias, hypospadias, etc. Excess or redundancy of parts, defect of organs, dropsies, as congenital hydrocephalus, hydrorachitis or spina bifida, irregularity of parts, distortion of extremities, etc., might all have been briefly alluded to, and thus increased the value of the work as one of reference for the student and practitioner. Dr. Ellis does not incline to the belief of many modern writers, that croup and diphtheria are identical, but views diphtheria as an epidemic, eminently contagious and of an intensely asthenic type from its very commencement, in which exudation is formed upon the tonsils and pharynx and spreads thence upwards and downwards, occurring at all ages, and in which paralysis is a common sequela. Whilst in croup he recognizes a disease, sporadic and very doubtfully if at all contagious, of asthe-

nic character at first, in which not the tonsils and pharynx, but the larynx and trachea are the parts first attacked, in which the tendency to spreading is far less marked, which is exclusively a disease of childhood, and of which paralysis is not a sequela. The chapter on chest affections contains all the information that can be required, as also chapter VIII, on diseases of the food passages and abdominal organs. Chapter IX, on general therapeutical hints and formulary, is valuable and comprehensive, and the final chapter on diet supplies an often experienced want to the young practitioner.

In conclusion, we can bear testimony to the variety and importance of the facts contained and to the general soundness of the deductions drawn from them. The treatment recommended is in harmony with modern views, and we consider the work a most useful compendium of the various diseases peculiar to children.

DEMONSTRATIONS OF ANATOMY, by George Viner Ellis, Professor of Anatomy, University College, London. Philadelphia: Henry C. Lea. Toronto: Willing & Williamson.

This truly excellent work is a vast improvement upon those in common use in dissecting rooms forty-five years ago, viz., Dublin Dissector, Harrison on the Arteries, Alex. Jardine Lizar's Text Book of Anatomy, Dermott's Plates, &c., &c., a period when royal roads to learning were not as numerous as at present, when the great Edinburgh anatomical teacher, Dr. Knox, fancied he could afford to sneer at the young teacher in Argyle Square, prefacing his introductory lecture in 1832 with the remark, "There is a young gentleman in Argyle Square who pretends to teach anatomy by pictures," repeating, with one of his peculiar facial contortions, "Pictures, pictures, gentlemen!" Notwithstanding the doctor was a most accomplished classic, he had evidently forgotten the quotation commencing, "*Segnius irritant animos demissa per aures, quam quæ sunt oculis subjecta fidelibus.*" Dr. Ellis, in common with all modern teachers of the science, is fully alive to the importance of pictures; his work is profusely illustrated with admirably executed plates, clear, forcible, and to the life. The advantage of such illustrations cannot be too highly appreciated. Artists and Anatomists have for centuries been closely allied. Titian, with the assistance of one of his pupils, sketched

the admirable drawings for the great work on anatomy by Vesalius. The great painter of Venice fully appreciated the merits of the young anatomist, for we find that when he had finished the portraits of Charles V., Francis I., the grand Signor Soliman, he immediately commenced those of Vesalius and Ariosto, the aristocracy of talent appearing to him worthy of a place beside the aristocracy of rank. We cordially recommend to students this work as an excellent companion in the dissecting room; the directions for dissection of the various parts of the body are clear and concise, and the work altogether is one of much merit. As a rule, we think students make the study of physiology follow anatomy, instead of preceding or accompanying it. The study of anatomy would be greatly facilitated by making the general notions of function precede the dissection of parts. The idea of function would be so associated with all the mechanical structure necessary for its exercise, that the details of the latter would present themselves in regular train. If students were early accustomed to contemplate the ends for which certain arrangements are made, they would be in little danger of forgetting the arrangements themselves.

SEVENTH REGISTRATION REPORT CONCERNING THE VITAL STATISTICS OF MICHIGAN. Henry B. Baker, M.D., Lansing, Michigan.

Nothing is better calculated to advance our knowledge of the great causes of disease, of the circumstances that affect public health, of the means to be taken to improve it, and to force these questions on the Legislature than such reports. Our brethren on the other side of the line have greatly excelled us in the care and attention displayed by the numerous State Boards of Health, in the cultivation of increased knowledge of vital statistics. The report of the Hon. A. Hardy, Secretary of State for Ontario, is greatly in advance of preceding issues, but very much yet remains to be accomplished before the great object in view, practical utility, results. The first step in this direction should be the establishment of a State Board of Health, armed with plenary power for the enforcement of answers to questions framed by medical experts. It is quite evident, from the reports published for years past by the Boards of Massachussetts, Michigan, Virginia, Illinois, and

numerous other States, that far more attention has been given to this important subject than has yet been accorded to it in Canada.

THE POPULAR SCIENCE MONTHLY.—June No. Published by D Appleton & Co., New York.

We always look forward longingly for the appearance of this valuable periodical, and we are never disappointed in our anticipations as to the merits of the contents. Though it is a publication decidedly identified with the ideas and theories of the *advance* class of scientists, the articles presented in its pages are always characterized by a liberal and gentlemanly tone, and as they are almost entirely divested of learned technicality, they may be pleasantly as well as profitably read by persons of even a moderate degree of scholastic education. The article in the present month's number, by Prof. J. S. Newbury, on "The Geological Survey of the 40th Parallel," is one that must interest every reader who has any love for geological science. The continuation of "John Stuart Mill," by Prof. Alex. Bain, is, as might be expected, both from the writer and his subject, one of very high merit. "Pleased with a Feather," by Prof. Grant Allan, is somewhat more pedantic than instructive. The "Sketch of Julius Robert Mayer," by the editor, (with a portrait) is a lovely gem.

THE STUDENT'S GUIDE TO THE MEDICAL PROFESSION.—By C. B. KEETLY, F.R.C.S. London: McMillan & Co. Toronto: Willing & Williamson.

To recent graduates and students contemplating a sojourn at the British hospitals and schools, we would strongly recommend the above guide, as affording much valuable information with regard to expenses, choice of schools, residence, lectures, honorary hospital appointments, expenses and time required for obtaining degrees at Oxford or Cambridge, and a special chapter for ladies who propose to study medicine, contributed by Mrs. Garrett Anderson, M.D.

Deaths.

In Hamilton, on the 27th of June, J. B. Laing, M.D., in the 67th year of his age.

At Wheatley, Ont., on the 3rd of June, Horatio Mills, M.D., in the 66th year of his age.

On the 15th ult., F. H. Braithwaite, M.D., of Port Perry, Ont.

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